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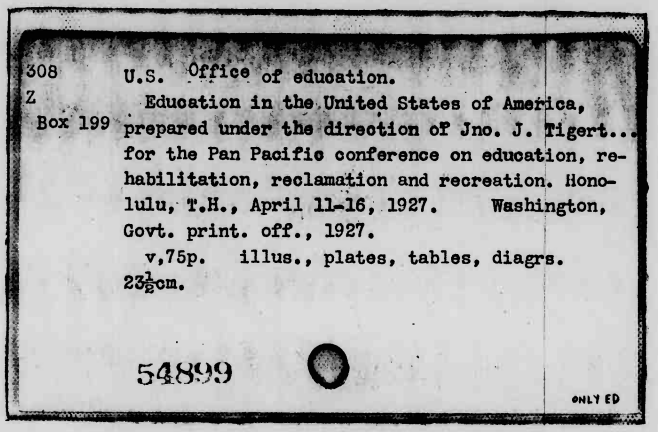

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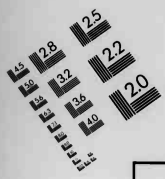
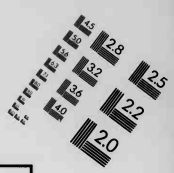
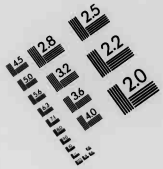
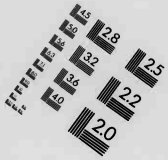

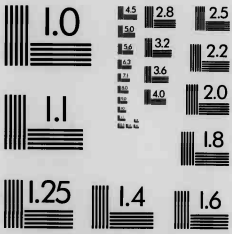
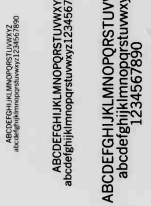
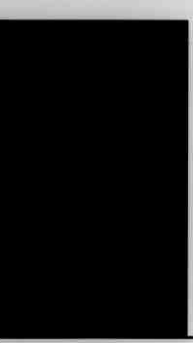

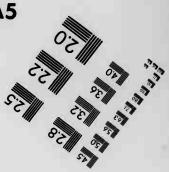

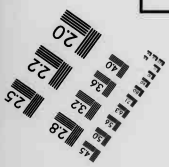
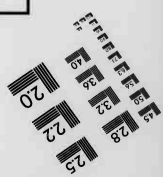

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EDUCATION IN THE UNITED STATES OF AMERICA

UNITED STATES DEPARTMENT OF THE INTERIOR ˇ ˇ ˇ *Hubert Work, Secretary*
BUREAU OF EDUCATION ˇ ˇ *John J. Tigert, Commissioner*

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HIGH SCHOOL AND ELEMENTARY SCHOOL AT GREENFIELD, OHIO

EDUCATION

IN THE

UNITED STATES OF AMERICA

PREPARED UNDER THE DIRECTION OF

JNO. J. TIGERT

United States Commissioner of Education

FOR THE

PAN PACIFIC CONFERENCE ON
EDUCATION, REHABILITATION, RECLAMATION
AND RECREATION

HONOLULU, T. H., APRIL 11 TO 16, 1927

UNITED STATES
GOVERNMENT PRINTING OFFICE
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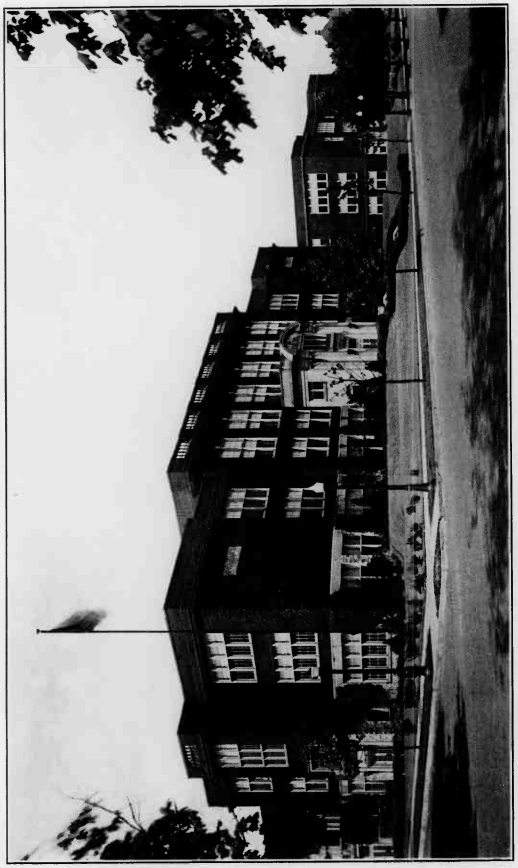
1927



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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, February 24, 1927.

SIR: Frequent inquiries are made by correspondents and by visitors, particularly from foreign countries, with reference to the organization of education in the United States and the activities of the Federal Government along educational lines.

This information has not been available in concise form. Accordingly, I have had prepared a short outline covering the educational scheme in this country, together with the activities of the Bureau of Education, the Federal Board for Vocational Education, and the educational work of the Bureau of Indian Affairs.

With a view of meeting a general demand for this kind of information, and particularly for the use of the approaching Pan-Pacific Conference on Education, Rehabilitation, Reclamation, and Recreation, where this publication will be peculiarly helpful, I recommend that it be printed as a bulletin of the Bureau of Education.

Respectfully submitted.

JNO. J. TIGERT, *Commissioner.*

The SECRETARY OF THE INTERIOR.

Education in the United States of America

Introduction

Free education in public schools is universal in continental United States and its dependencies. The theory of this republican form of government presupposes a citizenry educated enough to understand and to direct intelligently through their chosen officers the affairs common to the Nation or to any of its political divisions. Agricultural, manufacturing, transportation, and commercial interests realize that their activities can be carried on to the best advantage only by having always a supply of educated workers upon which to draw. The people of the United States consider it a privilege and a duty to see that their children are as far as possible educated and trained. With such general faith in education—a growth of nearly three centuries—the question in the United States is not whether there shall be educational facilities for all people but how those facilities may be provided best and how the process of education may be constantly improved.

Summary of School Statistics

The following table gives a summarized statistical review as complete as may well be obtained of education in the continental United States for the year ended July 1, 1924. In this Nation of approximately 112,000,000 of people at that time, 27,559,835 or more were enrolled in some kind of organized schools taught by 906,642 teachers. Nearly $2,400,000,000 was spent for all types of education, and the value of school property including endowments amounted to more than $6,509,000,000.

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TABLE 1.—*Statistics of education in continental United States for the school year ended June 30, 1924*

Level of instruction	Number of pupils enrolled	Number of teachers	Expenditures	Value of school property
Public elementary and kindergarten	20,898,930	617,078	$1,231,554,330	$3,744,780,714
Public high school	3,389,878	144,230	589,189,606	
Private elementary and kindergarten	1,473,145	51,536	86,812,435	300,000,000
Private high school	254,119	15,703	44,145,553	396,616,100
Other secondary	97,000	(1)	(1)	(1)
Private commercial school	188,368	4,105	(2)	(2)
Teacher training institution	245,669	12,517	[3] 48,948,518	[4] 136,623,958
College, university, and professional school	664,266	56,279	[5] 341,515,910	[6] 1,056,929,060
Defective and delinquent [7]	[8] 148,261	4,119	44,182,043	[9] 27,901,829
Indian and Alaskan	38,444	1,075	7,165,517	19,675,000
Private trade school	187,828	(2)	(2)	(2)
Totals for data given	27,559,835	906,642	2,393,513,912	5,681,616,778

[1] Included elsewhere.
[2] No data.
[3] Receipts, of which $34,000,000 came from public funds.
[4] Exclusive of $12,862,722 in endowments.
[5] Receipts, not including $46,726,677 additions to endowments.
[6] Exclusive of $814,718,513 in productive funds.
[7] Data for 1922.
[8] Includes 26,163 in public schools.
[9] Schools for deaf only; $909,883 in public schools, included also with public elementary and kindergarten.

In 1924, 263,280 public school buildings were in use, including those for one-room schools. There were about 22,500 public and 2,500 private high-school buildings. Some 325 public and 75 private teacher-training institutions were maintained. Of the 913 colleges and universities, 144 were under public control.

Children of school age, that is, 5 to 17 years, inclusive, were reported to a total number of 29,345,911. Counting the total enrollment in public and private kindergarten, elementary, and secondary levels of instruction, 26,113,162 were recorded as pupils in some school. Of these, 564,363 were in public and 54,456 in private kindergartens. The average daily attendance at the public schools in 1924 was 19,132,451 or 78.8 per cent of the enrollment.

The schools generally open in September and close in May or June with short vacations at Christmas and Easter. The normal school year, therefore, extends over 9 or 10 months. Rural schools of many of the States do not continue so long, and in consequence the average length of school term for the country as a whole is 168 days of actual teaching. The average number of days attended by all pupils was 132.5.

Of the estimated total of expenditures for education, not including commercial and correspondence schools, more than three-fourths, or $1,820,743,936, was for public elementary (including kindergarten) and high schools, and about 5.5 per cent or approximately $131,000,000 for private schools of similar grade. About 15 per cent was expended by the colleges, universities, and professional schools, and 2 per cent by the teacher training institutions.

Of the school property, estimated at $6,509,198,013, including endowments, the public elementary and secondary schools may be credited with about 57.5 per cent; the private elementary and secondary schools with 10.7 per cent; colleges, universities, and professional schools, about 28.8 per cent; the teacher training institutions with 2.3 per cent; and the other schools named in the table, 0.7 per cent.

School Organization

The school systems provide for every child capable of following it a direct and open pathway for regular progress from the kindergarten to and through the university regardless of the social or financial status of his parents.

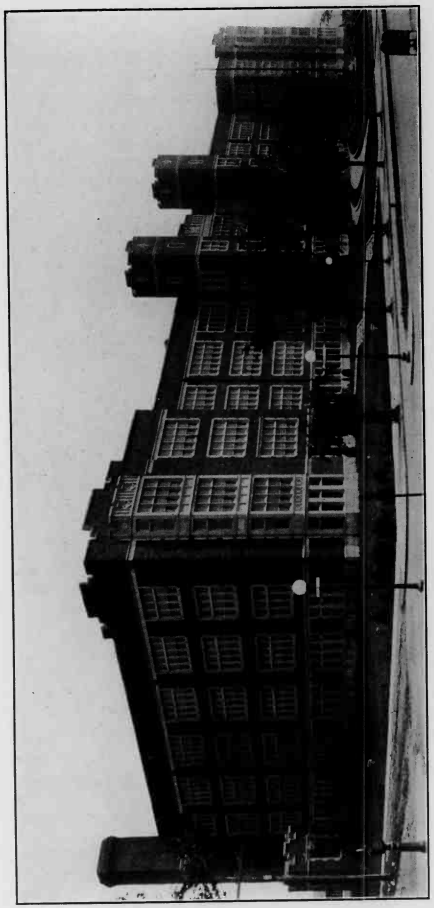
The first opportunity for education is in the kindergarten. It is offered in practically all the large cities and in many smaller communities for children 4 to 6 years of age. In 44 of the States there are laws which permit or require the establishment of kindergartens. Although completion of the kindergarten unit is not a prerequisite for admission to the elementary schools in the majority of systems, there is a marked tendency to consider the work of the kindergarten and the first two or three grades as a unit. The term commonly used for this unit is kindergarten-primary grades. Nursery schools are becoming recognized as an asset in pre-school education. They care for both the physical and mental education of young children up to the age of 4 or 5, when they enter kindergarten. Most of the nursery schools now established are maintained by private funds.

In those systems in which kindergartens are not established, children usually enter the first grade of the elementary school at the age of 6. The number of elementary grades above the kindergarten varies in different parts of the country, and it may be 6, 7, or 8. The organization of the secondary school varies correspondingly, for the two classes of schools are interdependent. Children moving from one part of the country to another or from grade to grade within any school system make the transition without difficulty.

The elementary school of eight years or grades (the two words are used synonymously) for children from 6 to 14 years of age is by far the most common. It is followed by the secondary or high school of four years. The two together constitute what is generally called the 8–4 plan.

In the southern section of the United States a seven-year elementary school, followed by a four-year high school, is commonly found. It is known as the 7–4 plan.

There is an increasing tendency to adopt a 6–3–3 plan of organization consisting of six grades above the kindergarten, constituting



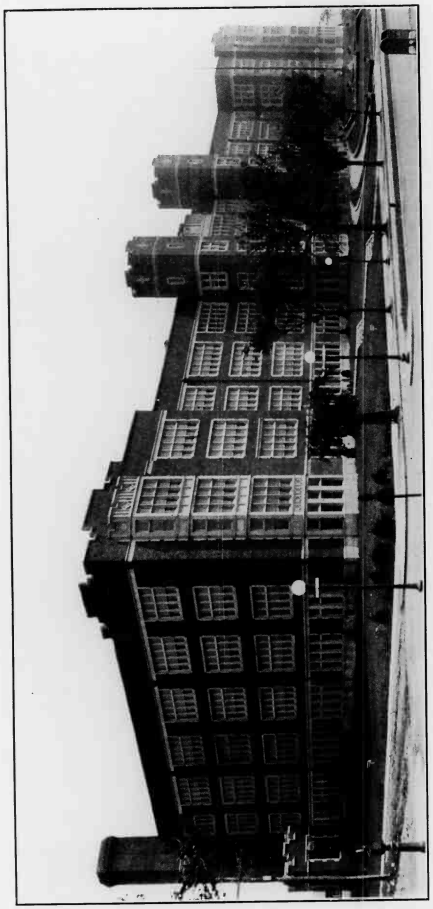
EASTERN HIGH SCHOOL, WASHINGTON, D. C.

the elementary school, followed by a three-year junior high school which in turn leads to a three-year high school, both the junior and the senior high school being considered in the field of secondary education. Completion of the high school in any one of these plans is marked by the granting of a diploma of graduation.

Graduation from a high school or its equivalent is essential to admission to classes leading to a degree in any of the various institutions which give instruction on the higher education level. In the colleges, normal colleges, and universities, the first four years of study are termed " undergraduate." The common practice is to speak of the first year as the freshman, the second as the sophomore, the third as the junior, and the fourth as the senior year. On completion of the first four years of higher education work the student receives the bachelor degree in arts, sciences, philosophy, pedagogy, etc., as the case may be. The degree is attained usually when the student is 22 or 23 years of age.

The junior college corresponds to the freshman and sophomore classes of the regular four-year institution. Its graduates may enter the junior year of the four-year college.

This four-year undergraduate school may be followed by study in the graduate school. The completion of one year of class study in residence with a written dissertation leads to the master's degree in arts, science, etc. Two years more of study, including research work and a dissertation, are required for the degree of doctor of philosophy.



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Education a State Function; the State and Territorial Systems

The control and maintenance of public schools within its borders is a function of each of the 48 States, the District of Columbia, the two organized Territories of Alaska and Hawaii, the Philippine Islands, and Porto Rico. The Constitution of the National Government makes no provision for education. That is left to the separate States. It is a recognized principle that the State, as well as the parent or guardian, has a definite responsibility for educating the child; that it shall through its legislature establish and control the means of education; and that it has the right to tax the property, within the limits fixed only by its own constitution or its own laws, of all its citizens in order to provide schools. This freedom on the part of the States and the Territories has resulted in the growth of independent school systems that differ from each other in details of administration, organization, rates of growth, effectiveness, and ability or willingness to maintain schools.

Certain characteristics are common to the 48 State school systems of continental United States. They are maintained by public moneys, partly the income from permanent funds, either intact or credits, and to a much greater extent by annual taxes of one kind or another. They are uniformly free in the schools below the university or college level, using the word free to mean that no tuition or fees are charged. Often all textbooks, pencils, pens, and other material as well as reference and library books are furnished.

All the States have compulsory education laws. These vary in their provisions but, in general, children between the ages of 7 or 8 to 14 or 18 must attend school for the full school term each year or until they have completed at least the elementary grades. In two States the minimal attendance required annually is as low as 80 school days; in one it is 100 days; in another 120 days, but for the most part attendance during the entire term is required.

The systems are predominantly coeducational. Separate schools for the sexes, especially among the public schools, are few in number. In general, public higher institutions are coeducational, and the majority of higher institutions under private control are likewise attended by both sexes.

Religion is not a subject of instruction. The State constitutions and laws usually provide that no sectarian teachings of any kind shall be given in public schools or those maintained or aided by public funds.

The language of instruction is English. In secondary schools and higher institutions foreign languages are taught as subjects of study, and a knowledge of one or more, leaving the choice as far as possible to the student, is required for the completion of a large number of courses of study or the attainment of degrees.

Administrative Organization

State School Administration

Each of the 48 States of continental United States provides, generally in its constitution, that the legislature shall establish a system of public schools free to all the children of the State. Numerous court decisions have sustained the principle that education is a State responsibility, and the tendency of public opinion and administrative theory in the United States is toward a more literal interpretation of this conception. In general, the State as a central administrative organization is more and more assuming leadership in educational matters, a substantial share of school financial support, and the responsibility for setting up minimum educational standards which which all school units within its borders must meet.

The lawmaking body of each State has established an administrative organization for the support, control, and general management, business and professional, of its school system. Certain powers, duties, and responsibilities are reserved to the State itself; others are delegated to other administrative units, of which the local unit is the most important. In many States there is an intermediate unit, generally the county in those States in which the county is not the local unit, to which certain administrative functions and some financial responsibility are delegated.

The local units of school administration into which each State is divided may be few or many in number—Utah has 40; Illinois has approximately 10,000—and the authority delegated to them differs among States, and in some States even among units within the State. They may or may not be coterminous with other civil units, such as the county, city, or township. The law regulates in a general way their number, area, and method of maintenance and control. The selection of the governing board, the employment of the professional administrative and teaching staff, the choice of the kind of school to be established, the arrangement of the course of study, the character of the instruction, and other matters of direct management are generally delegated to the local unit, subject to certain broad limita-

tions fixed by State law or regulation. The general policy is not to limit or prescribe the local units but to aid and guide them in providing educational facilities so far as possible within the limits fixed by the State. In some States certain types of worthy educational effort may be rewarded by a monetary grant from the State or by some other form of special encouragement.

School support.—Public education in the United States is supported chiefly from State, county, and local district funds. Property taxation is in nearly all States the chief source of school support. All States contribute from State sources to the support of elementary and secondary schools under local administrative control and management, and support State institutions (usually called State teachers' colleges or normal schools) for the preparation of teachers for the elementary and secondary schools. (See pages 38 and 20 for full information concerning higher education and teacher preparation.) In nearly all States in which the county is an important civil or school administrative unit it is also a contributor of some importance—generally through property taxation—to the support of schools. In 1924 10 per cent [1] of the total receipts for school purposes from taxation and appropriation were from county sources. The large burden of maintaining schools for the United States as a whole, however, is borne by local school districts, including the county where it is the local unit. In 1924 the percentage of total revenues received from local sources was approximately 74 per cent [1] of the total.

Many of the States have some form of permanent school fund, either moneys invested in securities or in State school lands, from which only the income is used for the support of local schools. This source of income may be supplemented by a special State tax or appropriation for schools. The amount of school revenue receipts from the States as such for local school support for the United States as a whole was approximately 16 per cent [1] of the total in 1924. In the total or per capita contribution, the percentage of total maintenance cost assumed, the method of securing State funds, the source of such funds and the method of distribution among school administrative units, there are wide differences among States. In general, State school funds are derived from the following sources: Permanent investments; special State school tax levied on all taxable property of the State; tax on special sources, as corporation, severance, income taxes; and direct appropriation for schools of a lump sum from total moneys collected by the State for general purposes.

Income from the rentals of school lands, most of which had been granted to the States by the National Government, amounted in 1924

[1] Bu. of Educ. Bul., 1925, No. 42: Statistics of State School Systems.

to $4,201,184, and the National Government directly aided vocational education to the extent of $3,985,814. Income from the investment of permanent school funds amounted to $20,465,091. Bond sales yielded $305,314,829, and $7,660,442 came from the sale of property and from insurance adjustments.

State school funds.—State contribution to local school support and the method by which State funds are distributed are considerations of increasing importance largely because of the continuing concentration of wealth and population in industrial and municipal centers. The method most commonly followed for distributing State funds is the per capita basis of scholastic population, or of enrollment or attendance at school. About half the States now distribute State funds wholly or in part with relation to the ability and effort of local units to support schools. Funds so distributed are called equalization funds.

State standards.—The standards established by State laws or through State regulations vary in number and degree of excellence. Some States aim to bring all the schools up to a certain unity of practice; others leave very important matters to even the smallest local units. All have set up minima in qualifications required for teachers' certificates, in length of school term, and in compulsory school attendance. Administrative units are generally expected to exceed these if their financial situation permits. Some States have either laws or official regulations governing the hygiene and sanitation of school buildings and grounds, school equipment, library facilities, instructional supervision, quality of the instruction, and matters of like nature.

State courses of study prepared by State departments of education are widely used in the small local units, especially in rural sections. These courses of study usually outline the essentials of subject matter that must be taught, or, "core courses" adaptable for use by all schools. Additional guides to teachers or more complete or "enriched" curricula are prepared for those systems which, because they are small or lack professional administrative or supervisory officers, are less able to formulate modern courses through their own resources.

The kind of textbooks used in the schools is to some extent regulated in most of the States. Two publish and provide free texts for all pupils. Twenty-six have lists of adopted textbooks from which local authorities must select. In a few States local units have entire freedom in the selection of textbooks. In 20 States, including the District of Columbia, mandatory free textbook laws are applicable to elementary schools; in several others the local units have the option of furnishing free texts.

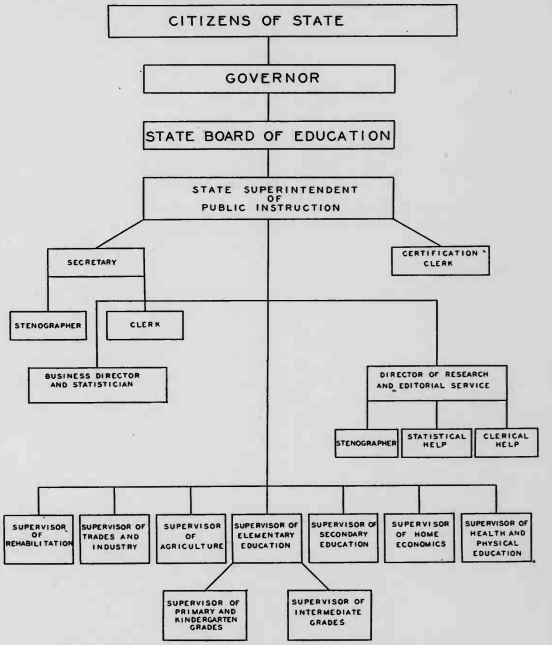
Beyond and above the increasingly higher State standards authoritatively fixed by law or regulation, other and stronger forces are constantly at work improving the schools. Through professional prestige and leadership State departments of education are influencing educational ideals. Through this kind of official leadership, through professional organizations, through conferences promoted by State educators, through free exchange of ideas between States and between systems within each State, uniformity is promoted and levels of achievement are raised.

The State department of education.—Each State administers and supervises its elementary and secondary schools through a State department of education. The State department consists, as a rule, of a State board of education; a chief State school officer, usually known as the commissioner of education or the superintendent of public instruction; an administrative staff of persons specially trained and experienced in different phases of education, such as elementary, secondary, vocational, etc.; a business and statistical staff; a certificating organization; and a clerical force. The strength and size of the State department and the extent to which control of the schools is centralized in it, depend somewhat on the area, population, and wealth of the State, but more largely on the historical development of the particular State school system and the attitude of the citizens toward school administration. In the process of growth cities, muncipalities, and other sections, having certain prescribed characteristics as to population and assessed property valuation, have either retained or acquired a wide measure of independence in administering their own school systems. The accompanying chart shows the plan of organization adopted by one of the strong State departments of education in the United States.

The State board of education, usually made up from 7 to 13 members either appointed by the governor or elected by the people, commonly functions as a legislative body. In some States the power of the State board is nominal; in others its authority extends to a considerable extent over higher educational institutions as well as elementary and secondary, and it may be the final arbiter, courts excepted, in many questions relating to the schools. In eight States, the State board of education selects the chief State school officer.

The chief State school officer (commissioner of education or State superintendent of public instruction) is elected by the people, appointed by the governor, or chosen by the State board, and serves for a term of from 1 to 6 years, or for an indefinite term. His duties are fixed by law or prescribed by the State board. He is expected to be, and usually is, the responsible executive officer and leader of the State department. Among the important duties generally assigned to him and his staff are those relating to the preparation of State courses

of study; general school standards; regulations concerning textbooks, teacher certification, distribution of State moneys, hygiene and sanitation of school building, etc. The chief State school officer is generally a member of important State boards, including those for the government of State educational institutions.[3] In some States he acts in a judicial as well as executive capacity.



TYPICAL ORGANIZATION OF A STATE DEPARTMENT OF EDUCATION

Local units for school administration.—The local units for administering the schools are of five more or less distinct kinds: The district, the New England town, the township, the county, and the city. The small district, under the control subject to State laws and regulations of a local "school committee" or board of trustees, was

[3] For information in detail see Bureau of Education Bulletin, 1924, No. 5.

the original organization in New England and later extended to other States westward and to the southwest. It is often served by a single school with one teacher. This local unit is still the kind usually prevailing in the open country.

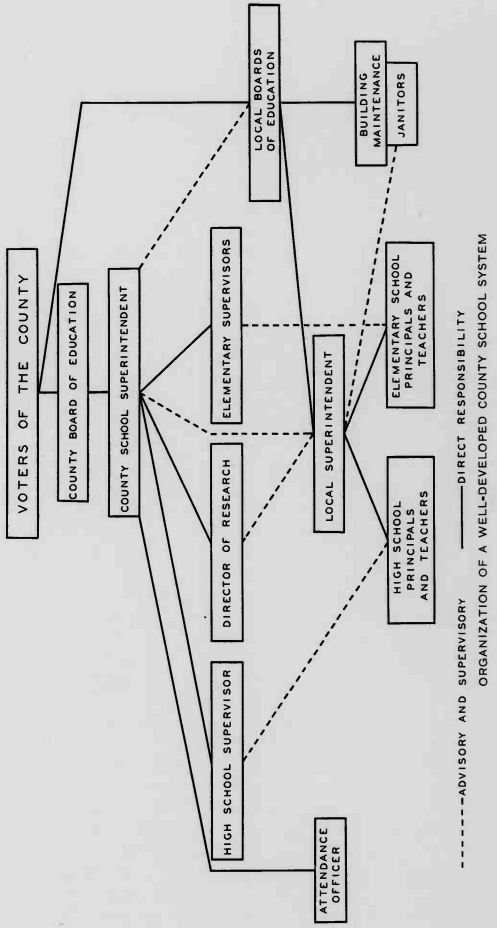
The town system includes under one taxation unit and one board of control all the schools in the civil-town unit. It originated in Massachusetts and spread until it has almost entirely displaced the district system in the New England States. The township as a local unit usually includes an area larger than the district and often larger than the New England town, but does not include cities nor large villages. It is used in all of five States and in parts of three others. Where it prevails the township is usually a unit of government in some civil matters also.

The use of the county for administrative school purposes originated in the Southern States, largely because the county was the important civil unit there. It has spread northward and westward and is displacing the district system in several States. In three States city schools come under the county administration. In many States independent cities contribute to the support of all the schools within the county in which they are. In each city, town, township, or county school unit a board of education or of trustees or a trustee, generally but not always elected by the people, has control over the schools within the area of the unit.

Types of county school organization vary considerably. The accompanying graph shows the plan followed in a county of considerable wealth and population where the supervisory control of the schools is centralized in a county board of education and a responsible county school superintendent.

In 38 States county school superintendents or commissioners are the supervisory officials for the schools outside of independent cities. They have also important administrative responsibilities. In 25 States the superintendents are elected by the people of the respective counties; in the others they are appointed by boards or State officials. The type of work usually done by county school superintendents is carried on by town or union superintendents in the New England States. In Connecticut there are also supervising agents who are members of the State department of education. In four other States the work is done by district or division superintendents or State officials.

Rural education.—Approximately 12,000,000 children were enrolled in 1925–26 in rural schools—that is, schools in the open country or in villages and towns of 1,000 population or less. Supplying these children with adequate instruction on elementary and secondary levels is one of the most difficult problems that the States must solve through the different forms of local school administration just de-



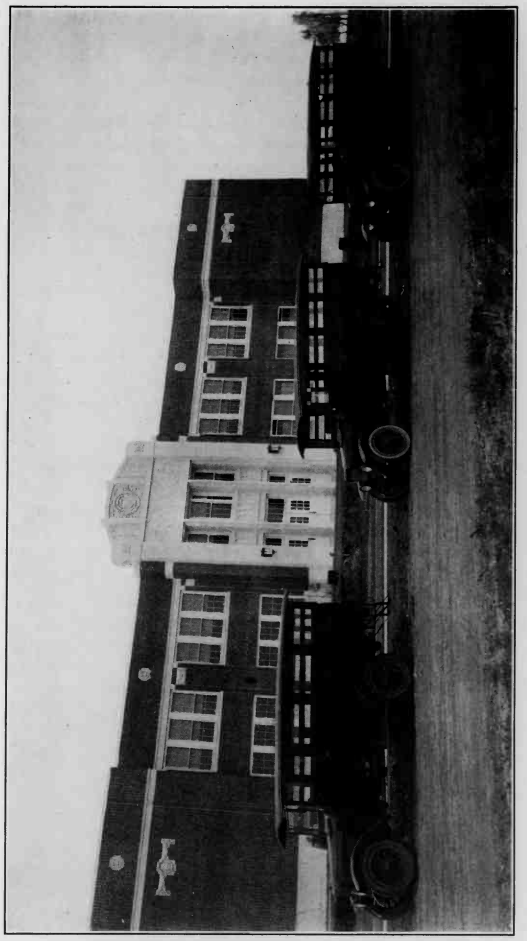
scribed. The early attempts at its solution were made through the establishment and maintenance of thousands of small administrative units each with one or more small schools, many of them one-teacher schools.

Certain inherent weaknesses in very small schools, such as limited social contacts, isolation, low tax valuation upon which to draw for school support, difficulties of supervision and direction, and inability to secure and retain trained, experienced teachers, have led to strong movements toward replacing the small schools and units by larger ones wherever practicable. These movements have been greatly strengthened by a general demand that instruction on secondary levels be made accessible for all children capable of receiving it. Better roads, new and more rapid methods of transportation, and greater ease of communication have facilitated the growth of larger schools.

School consolidation.—Schools formed by uniting two or more small schools or units are usually named consolidated or centralized schools. Their creation is legalized in some way in all the States, generally through permissive rather than mandatory laws. They may be formed in various ways, such as by the voluntary effort of the people interested or by the action of boards of education or trustees. In several States special types of consolidation are provided for secondary instruction. They have such varied names as union high schools, community high schools, or county high schools However, consolidation as most commonly practiced includes instruction on both elementary and secondary levels in the same administrative unit.

Consolidated and centralized schools are formed at the rate of about 1,000 a year. Approximately 15,000 such schools were in operation in 1924, enrolling some two and three-fourths millions of children. They offer opportunities for wider social contacts for the pupils, better division into grades, more hygienic and aesthetic surroundings, more diversified curricula, and they have other advantages over the schools they have displaced.

One-teacher schools to the number of 165,000 and enrolling approximately four and three-fourths millions of children were operating in 1925. They are decreasing by about 5,000 a year. Many of them will continue for years to come, either because it is impracticable to unite them into larger units or because the people whom they serve desire to retain them. Two, three, and four teacher nonconsolidated schools in the open country care for one and one-half millions of children. The remainder of the 12,000,000 rural pupils are in villages and towns, and in the high schools of cities and districts other than those in which they live.



OAKLEY CONSOLIDATED SCHOOL, KANSAS

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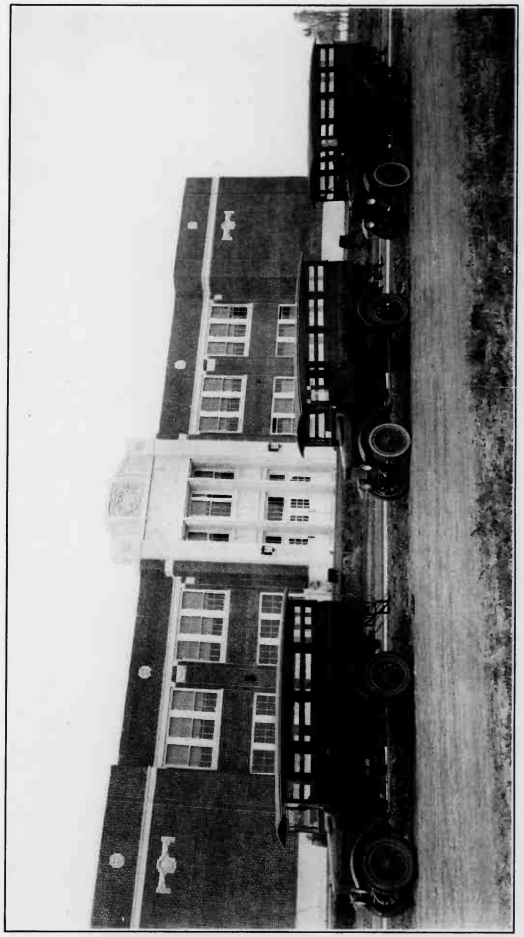


OAKLEY CONSOLIDATED SCHOOL, KANSAS

Pupil transportation at public expense.—Establishing fewer and larger schools necessarily means that many children live too far from the school building to walk the daily round, and parents mindful of the right of their children to an education have not been slow to insist that if the school is not placed near the child, then the child must be taken to the school, and at public expense. The use of public funds for pupil transportation began in Greenfield, Mass., in 1869, and the principle has so far spread that all the States now practice it. Some of them provide that compulsory school attendance laws shall not apply to children who live at specified distance from a schoolhouse, unless transportation is furnished. The cities attempt so to place the school buildings that each section will be served without taking too much of the pupils' time in transit, and some of them supply special transportation for crippled children.

In addition to the necessity for transporting children to school, there are advantages which make a well-managed pupil-transportation system very valuable to the school which serves a wide territory. Attendance is more regular; tardiness is reduced to a minimum; the children are protected from wet and cold weather; and they have the advantage of a wholesome moral atmosphere in a well-supervised school bus.

The transportation item in the school budget now amounts to more than $30,000,000 annually in the 48 States. In 1924 nearly one-fourth of the States spent approximately $1,000,000 each[4] in transporting children to and from school, and in one State the amount spent that year exceeded $3,000,000. More than a million public-school pupils are regularly transported to school. For this work approximately 20,000 motor busses, probably half as many horse-drawn busses, and many private conveyances are used.

[4] Rural Sch. Circ. No. 16, Bureau of Education.

The Teaching Corps

More than 900,000 teachers and some 50,000 administrative officers, supervisors, and principals are at work in the educational institutions of the United States. They are distributed among the different types of schools as follows:

TABLE 2.—*Distribution of teachers and student enrollment*

Classification	Teachers[1]				Ratio of number of pupils and students to number of teachers
	Men	Women	Total	Per cent of teachers who are men	
Elementary schools, including kindergartens, public	76,816	540,262	617,078	12	34:1
High schools, public	51,915	92,315	144,230	36	24:1
Elementary schools, including kindergartens, private (estimated)	7,122	44,414	51,536	14	28:1
High schools, private	6,192	9,511	15,703	39	16:1
Universities, colleges, and professional schools	44,345	11,934	56,279	79	13:1
Teachers' colleges and normal schools, public and private	4,949	7,568	12,517	39	22:1
All other schools	3,303	5,996	9,299	35	17:1
Total (excluding duplicates)	194,642	712,000	906,642	21	31:1

[1] Does not include approximately 50,000 administrative officers, supervisors, and principals.

Approximately 325,000 of the 617,078 elementary public-school teachers are employed in rural schools; about half of them are in schools of the one-teacher type. Data show a decided decrease during the past five decades in the percentage of men serving as elementary and secondary teachers. Since 1920, however, the percentage has increased from 14.1 to 16.9.

The legislation concerning teachers formulated and passed by the individual States has little regard for reciprocity or cooperation with other States. Policies are established and standards set with an independence equalled only by separate nations. Few statements can be made concerning the status of teachers that apply equally well to all sections of the United States.

Salaries of Teachers and Administrators

Expenditure for salaries of teachers amounts to approximately 75 per cent of the total current expenditure for elementary and secondary schools. In colleges and universities it constitutes a somewhat

smaller part, or approximately 60 per cent, of the total spent for operation and maintenance.

Some idea of salaries paid, as well as comparative salaries among different kinds of schools, may be had from Table 3, showing the medians for the United States as a whole in 1925.

TABLE 3.—*Median salaries of teachers, 1925*

Classification of teachers	Median salaries	
	Elementary schools	High schools
Rural schools:		
One-teacher	$748	
Two-teacher	759	
Three-teacher	865	
Consolidated	1,055	
Country village	1,186	
City schools:		
2,500 to 5,000 inhabitants	1,129	$1,491
5,000 to 10,000 inhabitants	1,231	1,617
10,000 to 30,000 inhabitants	1,354	1,738
30,000 to 100,000 inhabitants	1,528	2,000
More than 100,000 inhabitants	1,943	2,531
Land-grant colleges:		
Assistant professors	$2,600	
Associate professors	3,150	
Professors	3,900	

Administrative positions pay higher salaries. City superintendents and presidents of universities and colleges are among those receiving the highest salaries. Medians for these positions are not available for all administrative positions arranged by groups. The medians range from $1,965 for principals of rural elementary schools to $9,000 for presidents of land-grant colleges. In general, the salaries paid in the land-grant colleges are slightly higher than the average paid in all the colleges and universities.

In order to obtain advances, teachers with exceptional ability and liking for the elementary grades have often accepted other service, such as high-school positions, for which they are not so well fitted. This practice is overcome in a number of school systems by the adoption of the "single salary schedule" which attempts to base salaries on such factors as professional improvement, experience and teaching efficiency. Teachers with approximately the same qualifications receive identical salaries whether they are employed in the elementary or high-school grades.

Teacher Certification

Teachers employed in public elementary and high schools are required to hold appropriate certificates, or licenses, issued either upon examination, or accepted credentials from recognized institutions, or diplomas of graduation from some institution of higher learning. Ordinarily salaries from public funds can not be paid to persons who do not hold such legal certificates. The kinds and grades of certificates issued are fixed by State law, and the power to grant them is vested in the State department of education, though in some States, counties and cities are still permitted to issue certificates. Twenty-nine States require high-school graduation as a prerequisite for certification; and a number of States specify the minimum age—usually 18 years—for applicants.

In a few States specialized courses in professional education in teacher-preparing institutions must be completed for licenses to teach in certain grades, such as the primary, the intermediate, the junior high school, etc., or in certain special subjects such as music, industrial arts, physical education, etc. Present tendencies are to grant certificates on professional training rather than on examination, to advance the professional requirements, and to issue special rather than general certificates. Eighteen States have eliminated examinations as a method for certificating teachers, or have perfected plans to do so at an early date.

Most States specify a minimum number of semester hours in professional education courses required for certificating high-school teachers. Only a beginning has been made in issuing certificates which limit high-school teachers to those subjects in which they have specialized in college.

Teachers in normal schools, colleges, and universities are not usually required to hold State certificates. Boards of trustees stimulated by standards set by voluntary accrediting agencies, such as the American Association of Teachers Colleges and the North Central Association of Colleges and Secondary Schools, usually require teachers in their institutions to meet the commonly recognized standards for their type of institution.

Tenure of Position

Annual change in the Nation's teaching personnel is very large. It has been estimated that 16 per cent of the elementary and high-school teachers leave the profession each year. Change from one school to another is still larger. Many young graduates who intend ultimately to enter other vocations seek teaching positions as temporary opportunities for employment. Low certification requirements and the fact that few positions in business or the professions offer superior wages for beginners contribute to this condition. Laws regulating the employment of teachers in some States render possible the adoption of teaching as a temporary service. In a few States school authorities are forbidden to contract with teachers for more

than one year. Eleven States, however, have enacted teacher tenure laws which generally prescribe a period of probation before permanent appointment, and guarantee security during good behavior and efficiency. For the most part, tenure in normal schools, colleges, and universities is secure during satisfactory service.

Teacher Training

The comparatively advanced age at which children in the schools of the United States are expected to select a vocation and begin special study for it is well illustrated in the training of teachers. Professional preparation for teaching does not usually begin until the 12 years of the elementary and secondary schools have been completed.

Standards for teachers.—The commonly accepted standard of professional training necessary for elementary-school teachers is two years above high-school graduation. This meets the requirements for a diploma in most normal schools. During these two years most of the courses pursued are designed definitely to give prospective teachers a subject matter and technique basis for their future work.

The minimum of academic preparation considered necessary for high-school teachers is graduation, with a bachelor's degree, from a four-year college based on high-school graduation. Within recent years a number of colleges have introduced professional courses in education in addition to subject-matter courses for prospective teachers. A study[5] of the high schools accredited by the North Central Association in the 18 States comprising the organization shows that 80 per cent of the teachers who received their education in colleges and universities attended such institutions for four years or more.

The minimum preparation recognized as desirable for faculty members of normal schools and teachers' colleges is graduation from a four-year college course plus an additional year of study in a special field in a graduate school or equivalent, and presumably possession of the master's degree. Colleges and universities are gradually filling vacancies and new positions with teachers who hold doctor's degrees.

Institutions for training teachers.—The normal schools and teachers' colleges, 382 of which reported to the Bureau of Education in 1923–24, are the chief agencies for preparing teachers. The number of students enrolled in these institutions has increased in 20 years from 65,300 to 245,649. Universities, colleges, city normal schools, and high schools have an additional 172,884 students preparing to teach. Seventy-eight per cent of all students preparing to become teachers are enrolled in institutions under public control.

[5] Proc. No. Cen. Assoc. Col. and Sec. Schools, Part I, 1922.

Colleges and universities usually confine their efforts in teacher training to the preparation of teachers for high schools; normal schools and teachers' colleges prepare elementary teachers principally, and most of them enter village and city schools; and high-school teacher training classes and county normal schools are for the preparation of rural-school teachers. The schools of the class last named are considered temporary expedients by practically all of the 21 States now maintaining them, to be continued only until normal schools and teachers' colleges can supply the needs of the rural communities.

Extension courses and summer schools.—A report from the Bureau of Education shows that almost 50,000 teachers took advantage of the extension courses offered by normal schools and teachers' colleges in the school year 1923–24. Many other teachers were enrolled in the extension and correspondence courses offered by colleges and universities. A larger number continue their professional education by attending the summer sessions of the normal schools, teachers' colleges, and universities. It is estimated that at least one-third of the Nation's teachers were in summer school in 1926; and in a few States more than half the teachers were enrolled in such schools during the vacation period.

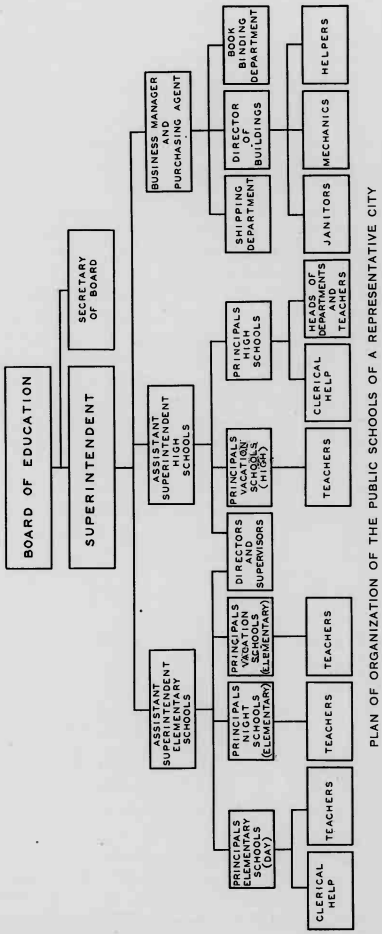
City School Administration

The people of the United States are most unevenly distributed. In large areas there are an average of fewer than one person to the square mile, and one-tenth of the country's entire population live in three great cities. A little more than half the people live in places of 2,500 or more; more than one-fourth of them are in 68 cities each with more than 100,000 people.

The city department of education.—The control of the city schools is usually vested in a board of education of 5, 7, or 9 unpaid lay members elected by the people or appointed by the mayor, the city council, or the courts. Election at large—that is, each member is voted for by the voters of the entire city rather than any ward or division of it—is the common practice and it is considered to be the best. The term of office may be from three to seven years, and the plan is favored of having the term of only one member, or at most a minority of the members, expire at any one time. The powers and duties of the city school board are wide. They correspond in many ways to those given the State board of education; but, like the State board, its functions as now generally understood are legislative, not executive.

For the actual administration of the schools the city board selects a city school superintendent, presumably a person of fine professional training, executive ability, and considerable successful experience in school matters. His powers and duties may be prescribed by law but for the most part they are fixed by the board of education. They vary, of course, with the size of the school system which he administers. In any event his responsibility is heavy, and in a large city he can meet it only by having a considerable staff of trained, expert workers in addition to the regular force of teachers.

Schemes, actually in operation, for organizing the administrative, supervisory, and teaching staff of a city system are many and diverse. Broadly speaking, under the supervision of the superintendent of schools the administration is organized into departments each in charge of an associate or assistant superintendent, a director, or a supervisor. The departments are commonly: Instruction, business, health, compulsory school attendance, and educational research. If the system is large each of the departmental directors or supervisors probably has one or more professional assistants and a staff of clerical workers. The teaching staff in each school building is usu-



PLAN OF ORGANIZATION OF THE PUBLIC SCHOOLS OF A REPRESENTATIVE CITY

ally directly responsible to a principal. The business office of the system may or may not be independent of the superintendent of schools. The graph on page 23 shows a comparatively simple plan of organization now used in a city of 180,000 inhabitants.

City school funds.—The school funds which come to the large city from the State play a comparatively small part in meeting its educational expenses. The city taxes its own assessed wealth to maintain its schools. The board of education may have full power to fix the annual school tax rate, or it may have the authority to decide upon the amount of money needed for the schools and require other city officials to levy the taxes necessary to produce that amount. In about 50 per cent of the large cities, the board of education submits an estimate of the funds needed to some other body, such as the city council, for approval or disapproval.

The purchase of school sites and the erection of school buildings call for comparatively large sums of money at one time and they can not as a rule be included in the regular levy for current expenses, so bonds are issued to supply the funds. Fastening a long term indebtedness on the city through a bond issue must usually be authorized by the qualified voters at a regular or special election. The practice is common. Many cities with 10,000 to 30,000 population have bond issues from $500,000 to $1,000,000; in the larger cities they amount to many millions.

Elementary Education, Including Kindergartens

The elementary school enrolls more pupils, employs more teachers, and spends annually more money than all the other types of educational institutions combined. In many States attendance at this unit of school until its completion is compulsory. In all States a full elementary education is looked upon as the minimum essential for every citizen. The elementary school is widest in territorial distribution and reaches into every corner of the Continental United States and its outlying parts. In sparsely settled areas elementary schools are often maintained at public expense for a group of as few as three or five children.

If the number of pupils is sufficient, the common practice is to have one regular teacher for each grade and a special teacher for all of the grades in a school system in each of such subjects as music, art, home economics, manual training, athletics, etc. In the large cities each grade may be divided into two half-year sections, higher and lower division, "A" and "B," taught either by one teacher in the same room or by two teachers and in different rooms. This plan helps to keep children of similar ages and abilities together, makes promotion a semiannual rather than annual affair, and in case the pupil fails of promotion he is required to repeat only half a year instead of a year. In the small rural schools one teacher may be expected to teach pupils in 2, 3, 4, 5, or even all of the 8 grades. The number of pupils in a grade or class averages between 30 and 40.

Kindergartens began in the United States under the patronage of philanthropic organizations, but in 1873 public school systems began to make them a part of their organizations. The annual increase for the country as a whole in the number of 4 and 5 year old children enrolled in kindergarten is greater than the annual increase for any of the grades from 1 to 8. This increase has been larger in the past few years and indicates a growing appreciation of the value of kindergarten education for young children. The percentage of 4 and 5 year old children enrolled in kindergartens varies among the several States from 42.9 per cent in California to 0.3 per cent in North Carolina. It is generally accepted by educators in the United States that the foundation of desirable social and physical habits, of general information and of skills in handling materials, established cooperatively by kindergartens and first grades, is essential to the best education of young children.

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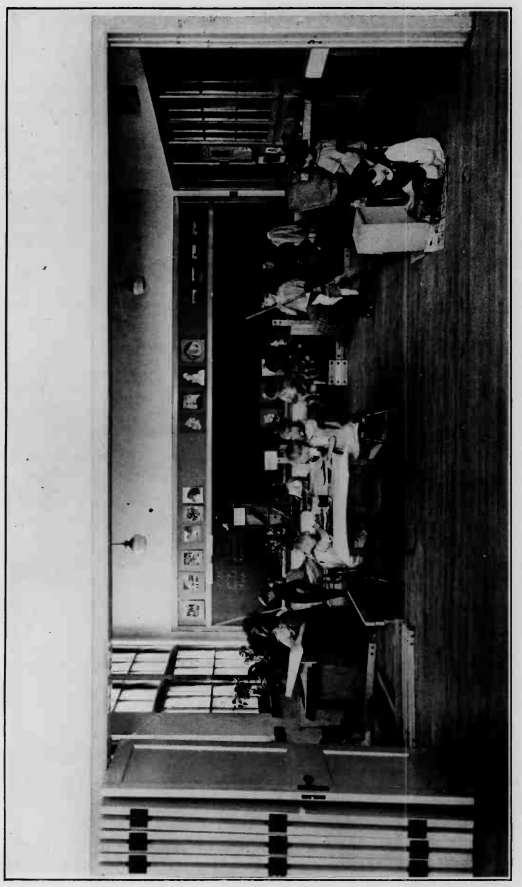


"WORK PERIOD" IN A KINDERGARTEN AT RIVERSIDE, ILL.

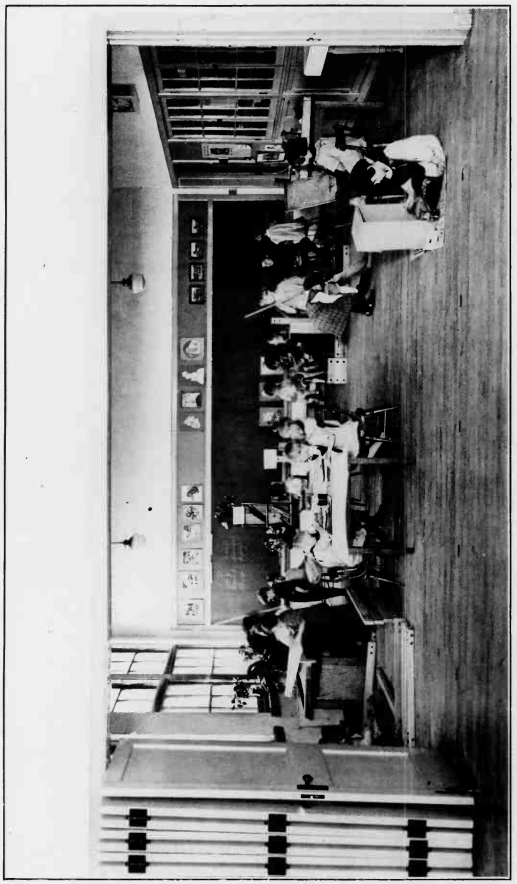
Since all children attend the elementary schools and many of them are unable to continue their education beyond it, the objectives for the work of these grades cover the skill and the knowledge essential in preparation for the privileges of citizenship, good health, and wise living. The general objectives for education are identical for all the school units. These objectives include the attainment of skill in using the fundamental processes of reading, arithmetic, spelling, graphic arts, and handwriting; the development of a healthy body and coordinated muscular control. Complete preparation for citizenship requires more than the attainment of skill in the use of tools. As a result, the objectives of the elementary school include the development of appreciation for the fine arts and for interdependence and responsibilities of members of a family and of social institutions. They also include some understanding of industrial processes and of civic organizations leading to participation in an industrial, professional, and civic life. In carrying out these objectives it is expected that certain desirable social and study habits will be developed which will provide for a high type of ethical character and wise use of leisure time.

Courses of study are prepared for the elementary grades by most State departments of education and by many city school systems. Each school system has a wide measure of freedom in the selection of subjects for study and the time which it requires pupils to devote to each subject in order to obtain the objectives of education just stated.

Courses of study state what subjects shall be taught, determine the topics within each subject which shall receive emphasis, define the objective goals for each, and describe how to teach and how to check results of teaching. These courses also plan the work of teaching the school subjects so that each grade relates its work to what has gone before and to what follows and makes its own contribution as well. The courses of study are not considered as final completed products to be used for an indefinite period of time, but in most progressive school systems they are kept in a state of reorganization. This reorganization is based upon the best current practice and upon scientific investigations which help to determine the worth of present or proposed plans.

In the elementary school provision is made for the attainment of skill in such subjects as reading, spelling, handwriting, arithmetic, and language, and for the attainment of valuable information through such content subjects as reading, arithmetic, English, civics, geography, history, nature study, drawing, industrial arts, music, physical activities, home making, and shop work of several kinds.

Tests of achievement have been devised for the "skill" phases of several subjects and for the content of other subjects to a more lim-



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Courses of study state what subjects shall be taught, determine the topics within each subject which shall receive emphasis, define the objective goals for each, and describe how to teach and how to check results of teaching. These courses also plan the work of teaching the school subjects so that each grade relates its work to what has gone before and to what follows and makes its own contribution as well. The courses of study are not considered as final completed products to be used for an indefinite period of time, but in most progressive school systems they are kept in a state of reorganization. This reorganization is based upon the best current practice and upon scientific investigations which help to determine the worth of present or proposed plans.

In the elementary school provision is made for the attainment of skill in such subjects as reading, spelling, handwriting, arithmetic, and language, and for the attainment of valuable information through such content subjects as reading, arithmetic, English, civics, geography, history, nature study, drawing, industrial arts, music, physical activities, home making, and shop work of several kinds.

Tests of achievement have been devised for the "skill" phases of several subjects and for the content of other subjects to a more lim-

ited extent. These tests have been given to thousands of children, and a standard of achievement has been derived which children of certain ages may be expected to attain. Mental and achievement tests as well as records of classroom work are frequently used to help teachers place their pupils in homogeneous groups for class teaching. A combination of mental and achievement tests is often used to determine whether pupils are doing as well in their school work as they are capable of doing, and help to determine a pupil's eligibility for promotion.

The subjects of instruction and the average number of minutes per week allotted to each in 49 large cities are given in the following table:[6]

TABLE 4.—*Average number of minutes per week allotted to elementary subjects in 49 large cities*

Subjects	Grades								
	I	II	III	IV	V	VI	VII	VIII	Total
Language	130	141	167	176	187	194	207	215	1,417
Reading	421	404	332	245	182	141	142	136	2,003
Spelling	39	82	87	85	82	78	72	73	598
Penmanship	67	72	77	78	77	75	63	58	567
Arithmetic	64	143	193	206	211	211	212	211	1,451
History	17	19	30	54	84	97	148	167	616
Civics	9	12	11	12	14	15	23	27	123
Geography	11	14	59	137	156	162	137	84	760
Science	22	23	23	23	21	21	22	26	181
Hygiene	16	16	18	22	27	27	25	22	173
Physical training	90	87	89	90	90	89	98	104	737
Supervised play	22	19	18	14	16	16	16	15	136
Recess	105	106	106	96	91	90	84	74	752
Industrial arts	22	22	25	30	50	65	90	106	410
Drawing	87	88	87	86	82	75	77	79	661
Music	71	74	74	77	76	74	70	75	591
Miscellaneous	97	93	99	97	99	98	88	87	758

For comparative purposes Table 4 presents an exact representation of the existing situation to-day in the large cities of the United States. For practical purposes, however, it must be noted that the actual time given in any one city in a particular grade is quite likely to be considerably larger than the average exhibited in Table 4. This is due to the fact that many cities condense their work in a given subject to fewer than eight grades. The average weekly time given by the 49 cities to spelling, for example, in the first grade appears as 39 minutes. As a matter of fact 25 of the 49 cities do not offer spelling at all in the first grade, a fact which makes the average allotment of the entire 49 cities about one-half of the time usually allotted when spelling is taught in the first grade.

The school day is divided into two sessions, morning and afternoon, usually with an intermission of one hour at noon. The actual

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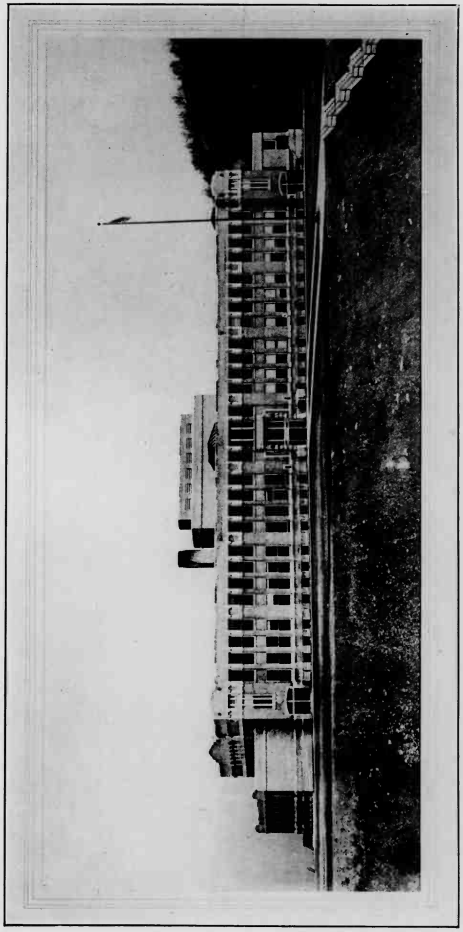

GREENFIELD ELEMENTARY SCHOOL, PITTSBURGH, PA.

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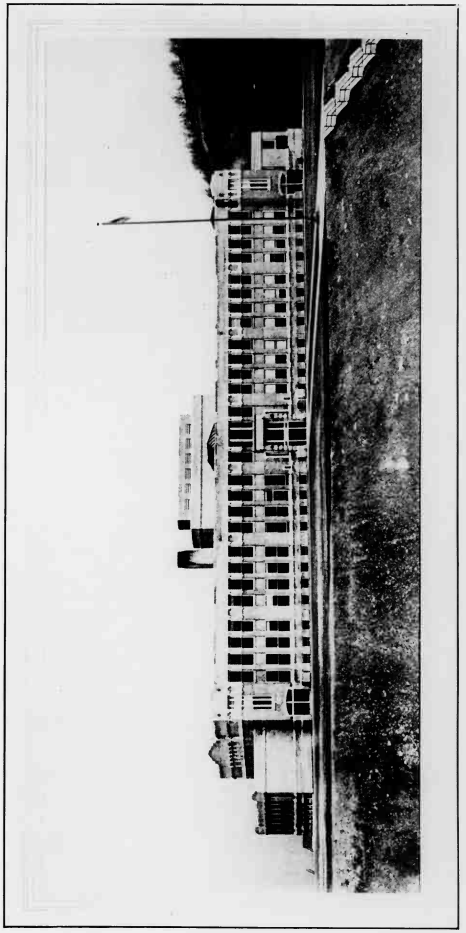

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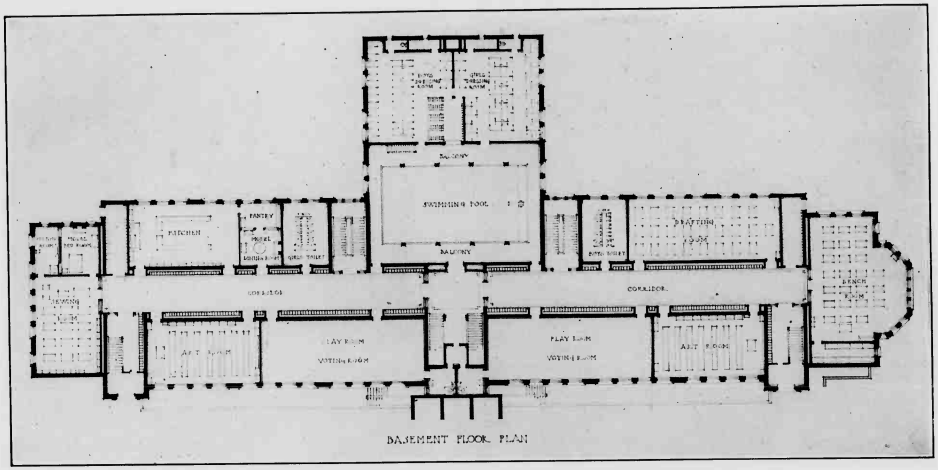
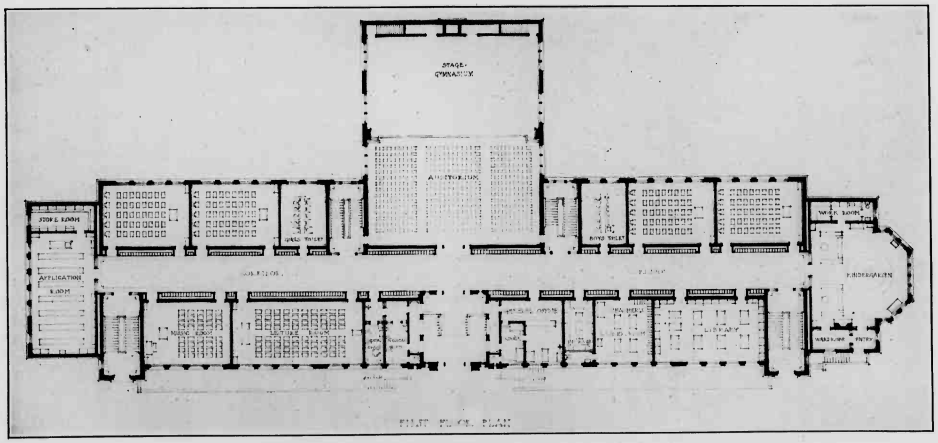


BASEMENT-FLOOR PLAN OF GREENFIELD SCHOOL, PITTSBURGH, PA.



FIRST-FLOOR PLAN OF GREENFIELD SCHOOL, PITTSBURGH, PA.

working time of the children is from 4½ to 5½ hours daily. The younger children of the first few grades attend a half hour less time at each session, and the kindergarten children usually attend only half a day, either morning or afternoon. A diploma of graduation issued sometimes by the State but more often by the local school system ordinarily marks the completion of the elementary school.

The behavior of children is considered of as great educational importance as the assimilation of subject matter. From a formal method of presenting subject matter in a logical manner, the present tendency in the United States is generally moving toward a psychological method of appealing to the pupil's interests and relating all the knowledge taught to the pupil's experiences. These experiences may be vicarious or actual. The major issue in the matter of method is the recognition that the nature of each individual, adult or child, is preeminently active and ready to respond to the many challenges of life. Lesson plans and daily teaching programs are made to focus about some vital interest such as home life, transportation of lumber, production of sugar, etc. These plans not only care for developing the subject itself, but they make it necessary for the pupil to read, to figure, to spell, to draw, and to do other things which help him to understand the major topic. This method helps pupils to see the uses of school subjects in daily life. The plans provide for a check on the pupil's increased skill in handling school subjects, as well as for his new knowledge of an industry or of social life.

Much demand is made upon the pupil's ability to work independently. Several progressive movements are in operation to stimulate independence and creative work among pupils. Among these are the Dalton plan and the Winnetka system. Progressive schools are working to promote interest in newer ideas of education.

Supervision of instruction is a part of the program in practically all elementary schools. Supervisors work with the teachers and help them improve their teaching technique, and bring to them new ideas of educational method and materials, and of classroom organization. The supervisor also works with the building principals who spend part of their time in supervising classroom work. Through visiting all the classrooms in a district the supervisor can assure certain desirable uniformity in the schools. This gives the children and teachers equal opportunities to have the best possible type of education, and facilitates the transfer of a pupil from one school to another within the same district. Supervisors visit teachers at work in classrooms, discuss with the individual teachers the work observed, and hold group meetings of teachers where topics of interest to all may be discussed, or demonstrations of teaching given.

Supervision of rural schools is usually provided by county superintendents, who, in some States, have assistants either to relieve the superintendent of all responsibility for instructional supervision in sections of the district or to give their full attention to special subjects such as music, art, health, and physical education.

In large city school systems where there are too many teachers in all the elementary grades for one supervisor to visit, the kindergarten and first three or four grades are usually placed under one supervisor, and the upper grades under another supervisor. Assistants are sometimes provided for these supervisors. Special supervisors are assigned for the special subjects of drawing, music, physical education, and handwriting in most large school systems.

The schools of the United States are receiving strong cooperation from the pupils' parents. Meetings are held at which the problems of home and school are presented. Teachers explain the work of the classrooms and familiarize the parents with the activities the children tell about when they go home. Parents, by the weight of their interest, often assist in promoting movements to benefit the schools. Fully a million and a half of the mothers of school children are enrolled in classes organized for the purpose of studying the interests and abilities of children. It is believed that when the teachers and parents work together in this way, the education of children moves forward more economically and effectively.

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Secondary Education

The growth of public secondary schools in number of pupils enrolled, amounts of money invested and amounts expended annually, excellence of school buildings, variety and strength of courses offered, and development of teaching methods and professional staff has been one of the most remarkable phenomena in public education in the United States.

The rate of increase of public high-school enrollments has been approximately 20 times the rate of population increase since 1890. This means that the selective factor in secondary education is rapidly being overcome and we are rapidly approaching the ideal of secondary education for all children of the accepted secondary school ages. From an enrollment of 357,813 in 1890, high schools have grown to an enrollment of 3,741,087 in 1924, and the rate of increase mounts at each successive census period.

Objectives and standards of secondary schools.—Naturally so rapid a growth has been attended by much confusion of opinion as to the aims, ideals, and purposes of the secondary school, and the best way of attaining them. As children from all social and economic groups made their way into the high schools, the original purpose of preparation for college became of minor importance in the broader theory which contemplates the education in secondary schools of all children of appropriate stages of maturity for any worthy aim in a life to be lived in an exceedingly complex democratic social state.

Standards of secondary education were and are necessary, however, and State departments of education, colleges and universities, and voluntary associations formed by the secondary schools themselves, have formulated criteria by which high schools may be judged, and accredited if they meet the standards. Fundamentally, the State department accrediting amounts to examining and listing those high schools which have met certain standards fixed by the State and may for that reason receive State funds. Accrediting by colleges and universities is primarily to decide whether the graduates of the high school may be admitted without examination. In some cases the college or university maintains its own staff of high-school inspectors and establishes its own list of accredited schools. The majority, however, accept the determinations of the State departments of education or of the voluntary accrediting associations. The voluntary accrediting associations are five in number, and are the New England College Entrance Examination Board, the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the Southern Association of Colleges and Secondary Schools,

the North Central Association of Colleges and Secondary Schools, and the Northwest Association of Secondary and Higher Schools. These associations are the chief agencies through which general standards are evolved and imposed.[7]

Required subjects and electives.—The broad policy of allowing secondary school pupils comparative freedom in the choice of studies is illustrated in the standard which recommends that only 8 of the 15 units necessary for graduation be required of all students. The requirement of a course is justified on two bases: (1) Its value as a means of developing common culture; ideals, attitudes, and appreciations; and (2) the frequency with which it is made a prerequisite for admission by colleges and universities. Elective courses may be required in special curricula such as commercial, home economics, agricultural, etc., or they may not be required in any curriculum. In the latter case they are termed free electives.

A summary of the practices in the 48 States in requiring work in certain important subject matter fields is given in the following table:

TABLE 5.—*Number of States requiring a definite number of units*[1] *in certain subjects*

Subject	Number of States requiring—						
	0 unit	1 unit	2 units	2½ units	3 units	4 units	5 units
English	0	0	3	0	39	3	0
Mathematics	1	2	23	12	4	0	0
Foreign language	13	0	21	0	2	3	2
Natural science	22	16	3	0	0	0	0
Social science	14	19	7	0	1	0	1

[1] A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work.

The table may be read "In English, 3 States require that the high-school graduate must have completed 2 units; 39 States require 3 units; and 3 require 4 units." The requirements for the other subject groups may be read in the same way.

Trends of curriculum emphasis.—Trends of emphasis upon special curricula are indicated by data on enrollments for 1918 and 1924. In 1924, 14,783 schools reported 2,318,363 pupils enrolled in academic curricula; 3,742 schools reported 540,975 pupils enrolled in commercial curricula; 3,860 schools reported 160,140 enrolled in home-economics curricula; 2,089 schools reported 155,167 enrolled in manual-training curricula; 2,604 schools reported 56,469 enrolled in agricultural curricula; 434 schools reported 41,998 enrolled in industrial or trade courses and 1,453 schools reported 34,138 enrolled in teacher-training curricula. Comparison of data for 1918 and 1924 shows

[7] See Bu. of Educ. Bul., 1925, No. 11: Accredited Secondary Schools in the United States.

the greatest per cent of increase in industrial and trade courses, and the least in teacher-training courses.

Example of secondary-school program.—An example of a secondary-school program follows. The school is organized on the 4-year plan; it accepts pupils that have completed the course of an 8-year elementary school, or its equivalent, and its graduates may be admitted to a college or university.

TABLE 6.—*Program of studies and curricula offered in Union High School, Mount Vernon, Wash., 1922–23* [1]

Grade	College preparatory courses		General	Commercial	Vocational
	Classical	Scientific			
9th.	**English.** **Latin.** **Algebra.** Ancient history. Manual training. Domestic science. General science. Agriculture. Music.	**English.** **Algebra.** General science. Ancient history. Manual training. Domestic science. Agriculture. Music.	**Algebra.** **English.** General science. Ancient history. Manual training. Domestic science. Agriculture. Rapid calculation, commercial arithmetic. Music.	**English.** **Algebra.** **Commercial arithmetic, penmanship.** Ancient history. General science. Agriculture. Manual training. Domestic science. Music.	**English.** **Algebra.** **Manual training, agriculture, or domestic science.** General science. Ancient history. Agriculture. Commercial arithmetic, penmanship. Music.
10th.	**English.** **Plane geometry.** **Latin.** Modern history. Manual training. Botany. Bookkeeping. Agriculture. Music.	**English.** **Plane geometry.** **Botany.** Modern history. Manual training. Agriculture. Bookkeeping. Music.	**English.** **Plane geometry.** Botany. Modern history Manual training. Domestic science. Bookkeeping. Agriculture. Music.	**English.** **Plane geometry.** **Bookkeeping.** Botany. Agriculture. Modern history. Manual training. Domestic science. Music.	**English.** **Geometry.** **Manual training, agriculture, or domestic science.** Bookkeeping. Botany. Agriculture. Modern history. Music.
11th.	**English.** **Latin or French.** **Advanced algebra.** Solid geometry. Economics. Chemistry. Typewriting. Agriculture. Music.	**English.** **Latin or French.** **Advanced algebra and solid geometry.** Chemistry. Agriculture. Economics. Typewriting. Music.	**English.** Chemistry. Advanced algebra. Solid geometry. Shorthand. Typewriting. Economics. French. Music.	**English.** **Shorthand and typewriting.** Advanced bookkeeping. Advanced algebra. Solid geometry. French. Economics. Chemistry. Music.	**Manual training, agriculture, or domestic science.** English. Chemistry. Advanced algebra. Solid geometry. French. Typewriting. Music.
12th.	**Physics, chemistry, or botany.** **Latin or French.** **U. S. history and civics.** English. Spanish. Public speaking. Domestic science. Shorthand. Typewriting.	**Physics.** **U. S. history and civics.** **Latin or French.** Spanish. English. Public speaking. Domestic science. Shorthand. Typewriting.	**U. S. history and civics.** Physics. English. Shorthand. Typewriting. Public speaking. French. Spanish. Music.	**U. S. history and civics.** **Shorthand and typewriting.** English. Spanish. French. Physics. Music.	**U. S. history and civics.** **Manual training, agriculture, or domestic science.** English. Physics. Shorthand. Typewriting. French. Spanish. Public speaking.

[1] Required courses are indicated by heavy type.

Junior high school.—The junior high school is of comparatively recent growth. Secondary education on a junior-senior six-year basis is offered in 2,546 schools, distributed unevenly through all

the States. About one secondary school in every six is organized according to the six-year plan. The purpose of the junior high school is in general to give training suited to children in early adolescence, and to facilitate transition from elementary to secondary studies. It is expected that here the child will be helped to discover his greatest interests and abilities so that he may choose his later vocation or his further school training wisely. Instruction is usually departmentalized. A variety of courses is offered, and the pupils are given much freedom in the selection of those they wish to pursue. Children who must leave school at the close of the ninth grade may be given specific vocational training, but the junior high school for the most part endeavors to give its pupils a general survey of many fields of effort rather than intensive training in any one.

The program following is of a junior high school in which each class is divided into two sections, "A" and "B." The first year is a common course for all pupils. In the second and third years they may elect any one of three curricula: Foreign language, technical, or commercial. In addition, an industrial and household arts curriculum for all three years is offered mostly for those students that will not carry their studies beyond the junior high school. It must not be considered, however, that the pupil who begins any one of these curricula is necessarily bound to follow it out. He may change to one of the others without much loss of time.

TABLE 7.—*Rochester, N. Y., junior high school course of study*

Grade	7B	7A	8B–8A	8B–8A	8B–8A	9B–9A	9B–9A	9B–9A	7[1]–8–9
Curriculum	General	General	Foreign language	Technical	Commercial	Foreign language	Technical	Commercial	Industrial and household
English	6	6	6	6	6	5	6	5	3
Social studies	6	6	4	4	4				2
Mathematics	5	5	5	5		5	5	3	3
Science	2	2	2	2	2	4	4	4	1
Health education	1	1	1	1	1	1	1	1	1
Industrial and household arts	3	3	3	4½	3	3	6	3	15
Penmanship	1	1	B–1½	B–1½	1			1	
Music	1	1	1½	1½	1	1	1	1	
Drawing	1½	1	B–1 A–1½			2			
Foreign language			2½			5			
Typewriting					A–3½			3	
First lessons in business and mathematics					4½				
Commercial geography					B–4				
Commercial occupation					A–1½			1	
Bookkeeping								5	
Mechanical drawing or design			2				3		3
Guidance	½	1	½	B–½ A–1	½	1	1		
School activities	3	3	3	3	3	3	3	3	2

[1] Pupils may elect this curriculum at any time after they are 14 years of age and have completed the work of the sixth grade. A State certificate is given on the completion of a 2-year course. A student following this curriculum may receive a certificate of graduation from the school provided he has attended 3 years and has met the necessary requirements.

Each period is 60 minutes long

Higher Education

Classified by method of support and control, institutions of higher education are of two general kinds—public and private. The publicly supported institutions derive their income from three sources: The city, the State, and the Federal Government. In the aggregate the States contribute the largest sums toward public higher education. The incomes are increased by the fees, tuition, etc., charged the students and by private gifts and endowments.

Exclusive of additions to endowments, the colleges, universities, and professional schools, both public and private, received $341,515,910 in 1923–24 for their support, and of this about one-third came from public funds, and student fees, tuition, and board and room amounted to $118,135,219 or 34.5 per cent. Of the $48,948,518 received by teacher-training institutions for their support, about $34,000,000 came from public funds. There are no data for the expenditures of commercial and correspondence schools.

The 48 States and the Territories of Alaska, Hawaii, and Porto Rico support and control 105 State and Territorial universities and colleges. In each of the Territories and many of the States, there is only one such institution; in each of other States, there are several. Included in the 105, are 69 colleges of agriculture and mechanic arts of which 17, in as many States, are exclusively for colored students. These colleges were created by virtue of an act of Congress passed in 1862, granting to each State certain public lands the proceeds of the sale of which should be used to endow, support, and maintain in the State at least one college whose leading object shall be instruction in agriculture and mechanic arts, "to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Toward the further support of these "land-grant colleges," the Federal Government appropriates to each State annually $50,000, and in addition other amounts to be used for certain purposes definitely specified in acts of Congress passed subsequent to that of 1862. The total Federal appropriations for these schools in 1925 was $11,982,697. Over the expenditure of this amount the National Government exercised no control, save only to ascertain that the funds were expended in accordance with a somewhat liberal interpretation of the law.

Only three institutions of higher learning are entirely supported and controlled by the Federal Government. They are the United States Military Academy at West Point, the Naval Academy at

Annapolis, and the Coast Guard School. Their purpose is to train men for the service indicated by their respective titles.

Until recently the support of higher educational institutions by municipalities was rare. In the past few years, however, there has been a decided trend in this direction. In addition to 9 municipally supported colleges and universities, 35 junior colleges are now established in connection with the local high schools as parts of the public school system.

The 769 or more privately controlled institutions are supported by endowments, gifts of private benefactors, student fees, and contributions from religious denominations. These institutions vary in size

WELLESLEY COLLEGE, MASSACHUSETTS

from the great university enrolling 10,000 or more students, with a corresponding number of faculty members, and material equipment and endowments running far into the millions, to the small college of arts and sciences, with a hundred students or fewer, a very limited faculty, sometimes meager equipment, and an income of a few thousand dollars.

According to the type of work offered, institutions of higher learning, both publicly and privately supported, may be classified as (1) junior colleges; (2) colleges of arts and sciences; (3) technical schools; (4) professional schools; and (5) universities.

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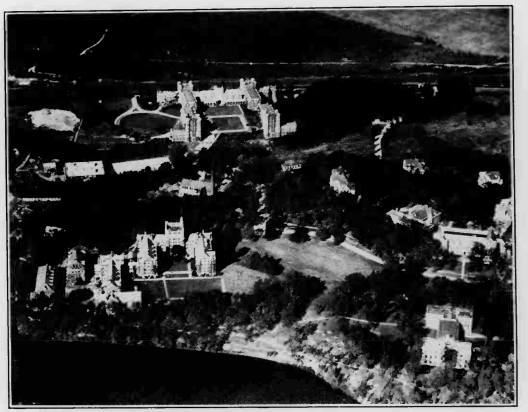

WELLESLEY COLLEGE, MASSACHUSETTS

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Requirements for admission.—Speaking in very general terms, the requirement for admission to the freshman classes of courses leading to a degree in any of the institutions described is the completion of

15 units in an accredited high school, or satisfactory evidence that the applicant has had training equivalent to that of the high school. Few students are admitted to higher institutions wholly on the result of entrance examinations. College entrance requirements vary and are steadily changing [8] in the direction of accepting units from a wider variety of courses and selecting the entrants from among the students who have made the higher secondary school records. The academic requirement is becoming more liberal; the personal requirement more strict, largely because secondary education is now graduating far more young people prepared for and asking admission to colleges and universities than those institutions can accept.

Foreign students in higher institutions of the United States.—The foreign student is admitted to higher educational institutions in the United States on the same basis as American students, provided he has the requisite preliminary education. In making application for admission to an institution he should submit a detailed statement of his previous education, elementary and secondary. A most important consideration is that the student's credentials show that he has sufficient knowledge of the English langauge to enable him to read it understandingly and to follow lectures in it.

A democratic spirit pervades American higher educational institutions. No barriers are raised between groups or individuals because of wealth or influence. No difference is made between native and foreign students. The relations between the faculty and the students are, for the most part, informal. The attitude of the faculty is of helpfulness and good comradeship toward the student. Many opportunities for social life are provided by clubs, fraternities, and other student organizations, which foreign students are free to join.

The academic year.—The academic year in nearly all American higher educational institutions is approximately nine months. The year is commonly divided into semesters of four and a half months each; some institutions divide it into terms of three months each. A few institutions continue their sessions the year round, operating on the so-called quarter basis. To the regular school year, in institutions conducted on the semester and term bases, is often added a special summer session, carried on about six weeks during the summer vacation. The summer sessions are intended primarily to give courses for the benefit of elementary and secondary school teachers desiring to take work for professional advancement, but they are also attended very largely by students who wish to take extra courses to make up deficiencies in work done during the regular session and by students desiring to shorten the period of study for a degree. Foreign students find in the summer schools an opportunity to shorten their period of residence in the United States and, by

[8] See Bu. of Educ. Bul., 1924, No. 35, "The Trend of College Entrance Requirements."

attending different schools, to increase their knowledge of American institutions. The summer courses are planned in accordance with the needs of each of these classes of students. They include most of the subjects offered during the regular session. From a sixth to a quarter of the year's work may be done in the summer session.

College credit and graduation.—The work of undergraduate college students is generally credited in semester hours, a semester hour's credit being one credit for a subject taken one period a week for one semester. Most subjects are offered three times a week and therefore usually carry six semester credits a year. One hundred and twenty semester hours is the normal requirement for graduation.

Expenses.—Practically all higher educational institutions, publicly and privately supported, charge annual tuition or corresponding fees. The State and municipally supported institutions usually exempt the resident of the State or city from these charges, but require them of all other students. The tuition at the State-supported institutions is usually less than at the privately endowed institutions and varies with the course of study pursued. In the arts and science colleges it runs from $20 in small institutions in some sections of the country to as much as $200 at other institutions. In some of the large privately endowed institutions it is as high as $400. As a rule tuition in the professional schools is higher than in the colleges of arts and sciences. Medical education costs from $100 to as much as $500 annually. To the expense of instruction must also be added laboratory fees, library fee, books, etc.

Junior colleges.—Junior colleges are institutions of higher education which offer two years of work equivalent in prerequisites, scope, and thoroughness to that done in the first two years of a four-year college. It is the purpose of such institutions to render educational service along three lines. First, presentation of a liberal arts course of two years which will lead to entrance to the junior year in a college or university; second, conduct of two years of professional or preprofessional courses; and, third, offering two-year completion courses for those who do not desire to secure a degree or to lead professional lives. Their development has been very rapid. Though there was no perceptible tendency to establish institutions of this character 20 years ago, in its educational directory for the year 1926 the Bureau of Education listed 155 junior colleges. They are supported by the city, by the State, or by private endowment. Their graduates are admitted to junior standing in four-year colleges and in universities.

The college of arts and sciences.—The college of liberal arts and sciences offers a four-year course of study and at its completion confers the degree of bachelor of arts, bachelor of science, or some other nonprofessional bachelor's degree. The earliest of American higher

educational institutions, they outnumber all other types and are very generally distributed throughout the country. They are either independent institutions or are divisions of universities, of which they form the central unit.

Technical and professional education.—Agricultural education is confined almost entirely to State-supported institutions and to one institution within the State. Engineering instruction, on the other hand, is offered in the State-supported colleges, four municipally supported colleges, and in upwards of 70 privately endowed institutions.

The colleges of agriculture offer a four-year course leading to the degree of bachelor of science or the equivalent. They are really

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASS.

professional schools whose primary purpose is to train students for the intelligent practice of their profession, but as public institutions receiving their support largely from State funds, they perform other important functions. Through their extension divisions they serve the State by disseminating agricultural information among the farmers, by lectures delivered in rural communities, and by actual demonstrations of farm processes given on the farms themselves. Through their experiment stations they conduct researches which greatly advance the science of agriculture. To lend encouragement and assistance to these scientific investigations the Federal Government contributed $50,000 to each State in 1926, and this will be

gradually increased to $90,000, which sum will be appropriated for the fiscal year 1930 and annually thereafter.

The State-supported school or college of engineering is generally a unit of the State university or of the land-grant college. It offers a four-year course leading to the bachelor of science degree in some division of engineering, e. g., civil, mechanical, electrical, mining, metallurgical, architectural, chemical, sanitary, etc. Practically all of the large privately endowed universities have colleges or schools of engineering, and there are besides some ten or a dozen independent institutions devoted solely to engineering training.

Professional schools of law, medicine, dentistry, and pharmacy are usually included in the organization of universities, both publicly and privately supported. A few independent schools are devoted exclusively to training in some one of the professions. Approved schools of law offer a three-year course of study leading to the LL. B. degree, to students who have had, in addition to high-school training, two years of work in a college of arts and sciences.

The schools of medicine offer a four-year course of study leading to the degree of doctor of medicine. For admission the approved schools require, in addition to high-school training, two years of study in prescribed subjects in a college of arts and sciences. A few medical schools require three years of college work and one or two require college graduation for entrance. In addition to the four-year medical course, 12 of the 79 medical schools require the candidates for a degree to spend a fifth year as an interne in an approved hospital.

Schools of dentistry offer a four-year course of study leading to the doctor of dental surgery or doctor of dental medicine degree. Admission to most of the 42 schools of dentistry in the United States is upon completion of a four-year high-school course plus one year of college work. A few of the schools connected with leading universities require two or more years of college work. The tendency in all the professional schools is toward the higher requirements for admission and for graduation.

Approved schools of pharmacy offer 2, 3, and 4 year courses of study in pharmacy, admission to each of which is upon the completion of a high-school course. A degree is conferred according to the course completed, graduate in pharmacy, pharmaceutical chemist, or bachelor of science in pharmacy or bachelor of pharmacy, respectively.

The school or college of education, either independent or part of the university, has developed within the past 25 years to meet the need for trained high-school teachers and school administrative officers. The typical school of education or teachers college offers a four-year course of study leading to the bachelor degree. A few

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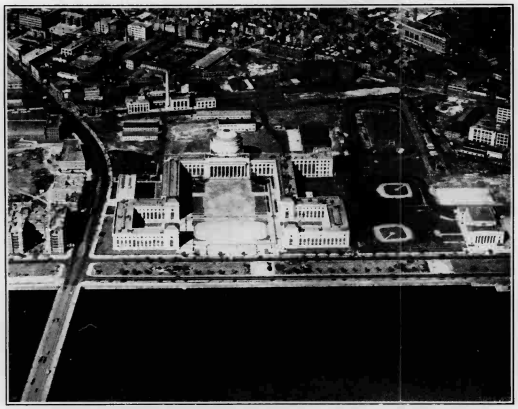

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASS.

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of these schools in universities are on a graduate basis and require a college degree for admission.

The American university originally consisted of a college of arts and sciences as a central unit and one or more professional schools each with its own faculty. A graduate school was later added. As time progressed other colleges or schools were added, such as colleges or schools of agriculture, journalism, etc. In the graduate school are usually organized as one unit all the advanced teaching and facilities for original research provided by the university in any of its departments. For entrance to the graduate school a bachelor's degree is required. It confers master's and doctor's degrees in the arts and sciences, and other advanced and professional degrees in the several special fields included in the university organization.

Standards established voluntarily for higher education.—Each of the States provides in its general incorporation laws, or by special act of the legislature in any specific case, for chartering degree-conferring institutions. To insure that the degree-conferring power may be adequately protected, some States have set up well-defined educational and financial requirements for higher institutions; others have no such restrictions and in them weak and unworthy institutions may sometimes obtain the right to confer degrees. The Federal Government is not authorized to regulate higher education. The need for some degree of uniformity is apparent, and the Council on Medical Education of the American Medical Association first took definite action in that direction 20 years ago. It drew up requirements for medical schools and classified the schools of medicine throughout the country in accordance with the degree with which they met the requirements, as class A, B, and C schools.

Following this example, other associations, both regional and national, began to set up requirements for the classes of institutions comprised within their membership, and to list institutions which met the standards. To-day there are voluntary organizations with definite standards for accrediting medical schools, dental schools, pharmacy schools, and law schools, and the work of these organizations has been instrumental in bringing about uniformity not only in these several types of professional education, but also to a large extent in the State laws governing the practice of the professions.

One national and four regional associations are active in the work of accrediting colleges and universities. Lately these organizations have adopted the same or similar requirements for the approval of institutions, so that standards for colleges and universities have become more or less uniform. It is on the standards and lists of these organizations that all who desire to learn the standing of higher educational institutions must rely for information.[9]

[9] See Bu. of Educ. Bul., 1926, No. 10: Accredited Higher Institutions.

Adult Education

The term *adult education* has been much used in the United States during the past few years, partly because its general use in Europe since the World War has been reflected on the American continent but more because a comprehensive and acceptable term was needed to designate a considerable number of educational activities.

Adult education includes attempts at the reduction and eradication of adult illiteracy; classes in English for non-English speaking aliens; widespread university extension courses now carried on in most of the States; many private correspondence schools conducted for profit; regular study at colleges and universities by persons well beyond the average college student age; lyceum and Chautauqua courses given annually in most towns and cities; schools and classes conducted by such organizations as the Young Men's Christian Association, Young Women's Christian Association, Knights of Columbus, and the Young Men's Hebrew Association; and the work done by the Bureau of Education and other agencies in planning and directing purposeful reading in the homes of the United States.

The general characteristics of what may properly be considered organized adult education are: (1) The individual must have passed the compulsory school age; (2) the work must be voluntary; (3) it must be somewhat intensive and should continue for some time; and (4) it must be done during the leisure time of the individual.

Reduction of illiteracy.—Effort to reduce or eradicate illiteracy among adults constitutes one of the major parts of the adult education program in the United States. The census of 1920 showed approximately 4,932,000 persons 10 years old and over who could not write in any language—regardless of ability to read—or 6 per cent of the population of that age. In the several States it ranges from 1.1 per cent, the lowest, to 21.9 per cent, the highest. The figures are the lowest in the considerable and continuous reduction that has been going on for 50 years. The decennial data since 1870 are: 1870, 20 per cent; 1880, 17 per cent; 1890, 13.3 per cent; 1900, 10.7 per cent; 1910, 7.7 per cent; 1920, 6 per cent.

Most of these decreases have been effected not by cure—the teaching of adults—but by prevention, the securing of regular school attendance of children between the ages of 7 and 14 through the medium of compulsory education laws and a better sentiment toward

their enforcement. They can not properly be credited to adult education. Among children from 10 to 14 years of age illiteracy in 1900 was 6.3 per cent; 20 years later it was 2.3 per cent. If only native white children of that age are considered, the figures are 2.9 per cent illiterate in 1900 and only 0.9 per cent in 1920. For the same dates and the same age group, illiteracy among colored children decreased from 26.8 per cent to 11.4 per cent.

Most of the States through legally constituted agencies are doing something to teach adult illiterates, the nature and extent of the work varying greatly from State to State according to the nature and extent of the problem. There are more and more providing funds that are to be matched by the local district for the support of classes for adults. Twenty-two States are giving aid for adult classes from State funds, the amount varying all the way from 20 per cent to 100 per cent of the total cost of instruction. In 17 of the States, it is over 50 per cent. State departments of education in 1925 reported that classes for adults were held in about 1,500 centers and enrolled 310,000 students, most of them of foreign birth. How many were illiterates when they entered the classes is not known.

Teaching foreign-born illiterates.—Foreign-born illiterates in the United States, living as they do for the most part in urban surroundings, seem to fare somewhat better than the native born so far as schools are concerned. Classes for non-English speaking aliens are established in most of the large cities. In municipalities where the aliens are most numerous the State and the city cooperate in providing funds for these schools; for instance, in the State of New York, $750,000 was provided by the State department of education for classes for aliens. They were held in 95 centers and were attended by 75,000 students. In some of the large cities, afternoon classes held in the homes are provided for non-English speaking women. Neighbor women are invited in and the children are taken care of while the mothers are taught.

Voluntary, disorganized, and sporadic efforts at teaching aliens and reducing the per cent of illiteracy are giving way to organized, legally authorized, and continuous work. Those States that have made the evening school a part of their regular school program are making satisfactory progress. Efforts at teaching illiterates by voluntary service have generally been short-lived and in the main unsatisfactory. A well-defined technique of instructing adults in elementary subjects is being developed and in a number of States training classes are held for teachers of adult classes.

The university extension movement.—The person who has had considerable preliminary education and desires or needs further training but can not give full-time residence attendance at an institution

finds in the United States many opportunities for advanced work. The university extension movement is widespread. Most States through the State university, the State agricultural college, and through the medium of private institutions are offering courses both by correspondence and in classes held outside of the institutions. Some institutions are supplementing correspondence study by talks over the radio. A number are offering motion-picture service. The range of subjects taught by extension methods is very wide. Almost every course offered in the institutions proper is now offered either by correspondence or by class work outside of their walls. The cost of many of the courses to the students is only a fractional part of its cost to the institution, but the tendency is to require that such courses return to the institution somewhere between 50 per cent and 100 per cent of their cost.

Private correspondence schools maintained for profit exist in considerable numbers and offer instruction on almost any school level.

An ever increasing number of adults are entering professional schools or taking regular courses in colleges and universities. Twenty-five years ago it was uncommon to find adults taking up college studies; to-day it is common to see a sprinkling of older people in the student body.

Free guidance of home education.—Any adult may further his own education at home by availing himself of the free guidance offered by numerous agencies. The United States Bureau of Education lists selected books, sets requirements for the courses, prepares test questions, and grants certificates to readers who have completed any one of 30 free reading courses arranged by specialists. The courses cover a wide variety of subjects. A permanent national committee on home education, organized under the leadership of the United States Commissioner of Education, holds conferences and aims to bring together data which will be useful to all of the agencies working on home education problems.

The American Library Association has issued 27 reading courses in a series called "Reading with a purpose." Each list of books for these courses is accompanied by comments in which attention is directed to the interest, pleasure, and profit to be found in the books. There are no requirements for these courses and no attempt is made to follow up the work. Courses on journalism, accounting, business, home economics, and house planning are also offered by this organization.

The National Congress of Parents and Teachers, with its membership of more than a million persons, promotes home education through its national, State, and local committees, using the reading courses of the Bureau of Education or its own outlines, furnished in

leaflet form or through its official magazine. It conducts each year a campaign to send children to the first grade of school free from remediable physical defects. An educational program for parents is included in the campaign for the better understanding of the needs of children and how to meet these needs.

Unofficial organizations of various kinds are encouraging directed reading and study among their home members, are organizing study groups, issue guides to good reading, and foster appreciation of science and good literature.

Special Types of Education

Technical and Vocational Education

Junior high school courses.—Technical and vocational education, in the strict sense of the terms, is not offered in the elementary schools. The manual arts courses given in the junior high schools furnish a series of controlled experiences in connection with a variety of common materials and tools used in construction work. The projects selected correspond to the ability and interest levels of the pupils. Usually from three to five of the following activities are included in the courses of any one school: Woodwork, sheet metal work, forging, electricity, machine shop practice, printing, automobile repair and construction, cement work, and wood finishing. These exploratory experiences with the processes and materials used in industrial production are valuable in increasing the industrial intelligence of the pupils and serve to discover interests and aptitudes either for or against manual industrial types of work. The time allotted to them ranges from 1½ to 5 hours a week for from 1 to 2 years.

Senior high school courses.—The industrial courses offered in either four-year high schools or three-year senior high schools are for specific trade training or for general education. The development of courses with a specific vocational aim has been greatly enhanced in the past 10 years by Federal aid given under the provisions of the national vocational education act. (See page 72.)

The schools not offering preparatory courses for special trades, yet offering industrial courses of some kind, usually give work in wood and metal to increase the industrial intelligence of the pupil and at the same time to afford opportunities for developing limited mechanical ability in the use and repair of industrial products and in services of the home and in connection with the common experiences of life. A course in mechanics for car owners is an example. Such a course may also be of some value to the boys who later enter trade work.

The trade and industrial courses for the secondary school period are offered in the following types of organization: All-day trade schools, part-time schools, and evening industrial schools. The all-day trade school in some cities is organized as an entirely separate institution, having its own principal and independent building and grounds. In some instances, even a separate tax levy is made for the independent all-day trade school. This type of organization has

proved valuable where it is difficult to fit trade courses into the academic high school so that they will function effectively. The courses in the all-day trade school are usually two years in length.

Sometimes trade courses are offered as a regular part of the curricula of a high school. Again they are organized as a separate department of the high school under the direction of a department head. This plan is most often found in the large urban high school. It has the advantage of bringing all types and classes of students together in the same school plant and all types of school work under the general administration of one principal, but with a separate department head specially trained in industrial education for the administration of industrial courses. A few States have established State-supported and controlled trade schools, open to students resident of the State. Connecticut has eight efficient full-time trade schools.

Private technical and trade schools.—A number of privately endowed and controlled trade and technical schools are scattered throughout the United States. Many of them are splendidly housed and equipped and offer instruction of exceptionally high order. Tuition in most of these schools is nominal. They have trained large numbers of students and have done much pioneer work of an experimental nature in developing plans for organization and instruction in industrial education. Some of them have developed technical courses on the higher educational level, offer full four-year courses, and confer degrees. Others offer two years of work beyond the secondary school and prepare individuals to function in technical positions involving operation, installation, and maintenance of industrial plants.

Other private proprietary trade schools are operated for the profit accruing from the tuition fees charged.

Higher technical education.—Public higher technical education as offered in the land-grant colleges is described on page 38. The instruction in the mechanic arts in these institutions includes: Mechanical engineering, civil engineering, electrical engineering, irrigation engineering, mining engineering, marine engineering, railway engineering, experimental engineering, textile industry, farm mechanics, architecture, machine design, mechanical drawing, ceramics, stenography, typewriting, telegraphy, printing, shopwork, and drawing.

The total enrollment in the courses named (in the land-grant colleges) in 1924–25 was:

Mechanical engineering	5,414
Civil engineering	5,851
Electrical engineering	8,436
Mining engineering	1,020
Chemical engineering	1,949
Architecture	1,042

Home Economics Education

Types and enrollment.—Home economics education, like technical and commercial, is offered in two types, general or cultural and intensive or vocational. General home economics only is offered in the elementary schools and junior high schools, and both general and vocational are found in the four-year high schools and the three-year senior high schools.

The public high schools reported in 1922 an enrollment of 1,155,611 girls, and of that number 304,981 were taking some courses in general home economics; and for the same year the Federal Board for Vocational Education reported 93,000 high-school girls in vocational home economics.

Home economics in elementary schools and junior high schools.—Home economics, commonly called "sewing" and taught for about

TEACHING HOME-MAKING IN AN ELEMENTARY SCHOOL, LONG BEACH, CALIF.

30 minutes each week, is sometimes begun in the third year of the elementary school. The practice of introducing it in the early grades is exceptional rather than general, but "sewing" is generally taught in the fifth year and both "sewing" and "cooking" are commonly found in the sixth year. This type of work below the seventh year is in many school systems recognized as a part of the industrial arts program while home economics or instruction for "personal living" and home making begins formally in the seventh year of the elementary school or the first year of the junior high school.

Time for home economics in the first 6 grades of the elementary school may vary from 30 to 90 minutes and the number of periods from 1 to 5 per week. For the third, fourth, and fifth years, 1

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period of 45 minutes is most frequent; for the seventh and eighth years of the elementary school and throughout the junior high school there may be as many as 5 periods per week, ranging from 50 to 100 minutes each. Many junior high schools allot as much time to home economics as they do to any other school subject. The senior high school allots from 2 to 5 periods per week ranging from 40 to 90 minutes each.

Home economics in the elementary schools and in the junior high schools purposes to teach girls between the ages of 12 and 15 proper ideals of right living as they pertain to health, the budgeting of finances, social relationships, recreation, vocational outlook, and self-culture. It aims to establish correct health habits and attitudes as related to foods, clothing, shelter, and ideals of home and family life; and to give girls a working knowledge of the daily household processes and to develop skills and technique commensurate with the age of the pupils.

Home economics in senior high schools.—Home economics in the senior high school assumes a more formal aspect. It includes foods and nutrition, clothing and textiles and related art, household management including household economics and home and family relationships, house planning and furnishing, and home nursing and child training and care.

Many high schools offer a home-economics curriculum covering four years, but the one and two year curricula are found more adaptable to the high-school girls who plan higher education. The home economics offerings are so arranged in the large high schools that a girl may major or minor in the subject or merely elect the courses that are of interest to her.

The work in the high school is generally elective. A few school systems require one or more years' work for graduation. The Central High School at Tulsa, Okla., requires its third year boys to take a year's work in home economics.

Many high schools offer a home economics curriculum which has preprofessional and vocational aims. The courses offered in such curricula are designed for potential home makers, prospective home-economics teachers, and for wage-earning positions in home economics or its allied fields. These courses are also elective for any high-school student who has met the prerequisites.

Home economics on higher education levels.—Among the institutions of higher education offering home economics either as a major or minor subject are all State colleges of agriculture and mechanic arts; State universities, with a few exceptions; many of the State normal schools; and a number of the privately endowed institutions both coeducational and women's colleges.

The work in the large State and privately endowed institutions is divided into major departments, such as food and nutrition, child study, home management, textiles and clothing, institutional economics, and the teaching of home economics. This division of home economics subject matter satisfies the demands of the student who desires to specialize in any one of the major departments, and of the student who desires general information concerning all or some of the major departments.

A number of the higher educational institutions maintain home management houses where from 6 to 10 upper class home-economics students live for one semester or a shorter period, and where, through

EQUIPMENT FOR HOME ECONOMICS IN A JUNIOR HIGH SCHOOL, BERKELEY, CALIF.

actual practice, they are familiarized with home and family problems. A young child or two, ranging from infancy to the kindergarten age, often forms a part of the family. The keynote of this type of education is preparation for intelligent utilization of everything relating to home and family life.

A number of the higher educational institutions, both State and privately endowed, have in connection with their child-study departments, nursery schools where actual and potential mothers and prospective directors of nursery schools receive first-hand training with young children ranging from 2 to 5 years old.

Teacher-training courses and facilities for practice teaching are maintained by practically all of these institutions. The public schools

period of 45 minutes is most frequent; for the seventh and eighth years of the elementary school and throughout the junior high school there may be as many as 5 periods per week, ranging from 50 to 100 minutes each. Many junior high schools allot as much time to home economics as they do to any other school subject. The senior high school allots from 2 to 5 periods per week ranging from 40 to 90 minutes each.

Home economics in the elementary schools and in the junior high schools purposes to teach girls between the ages of 12 and 15 proper ideals of right living as they pertain to health, the budgeting of finances, social relationships, recreation, vocational outlook, and self-culture. It aims to establish correct health habits and attitudes as related to foods, clothing, shelter, and ideals of home and family life; and to give girls a working knowledge of the daily household processes and to develop skills and technique commensurate with the age of the pupils.

Home economics in senior high schools.—Home economics in the senior high school assumes a more formal aspect. It includes foods and nutrition, clothing and textiles and related art, household management including household economics and home and family relationships, house planning and furnishing, and home nursing and child training and care.

Many high schools offer a home-economics curriculum covering four years, but the one and two year curricula are found more adaptable to the high-school girls who plan higher education. The home economics offerings are so arranged in the large high schools that a girl may major or minor in the subject or merely elect the courses that are of interest to her.

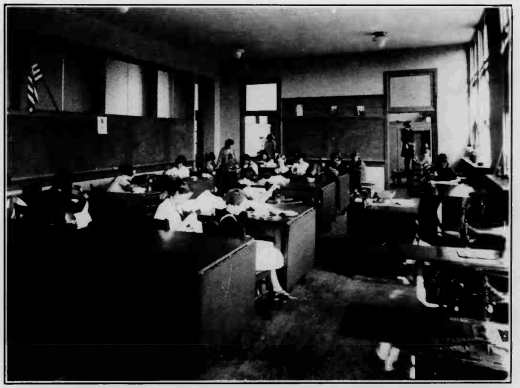
The work in the high school is generally elective. A few school systems require one or more years' work for graduation. The Central High School at Tulsa, Okla., requires its third year boys to take a year's work in home economics.

Many high schools offer a home economics curriculum which has preprofessional and vocational aims. The courses offered in such curricula are designed for potential home makers, prospective home-economics teachers, and for wage-earning positions in home economics or its allied fields. These courses are also elective for any high-school student who has met the prerequisites.

Home economics on higher education levels.—Among the institutions of higher education offering home economics either as a major or minor subject are all State colleges of agriculture and mechanic arts; State universities, with a few exceptions; many of the State normal schools; and a number of the privately endowed institutions both coeducational and women's colleges.

The work in the large State and privately endowed institutions is divided into major departments, such as food and nutrition, child study, home management, textiles and clothing, institutional economics, and the teaching of home economics. This division of home economics subject matter satisfies the demands of the student who desires to specialize in any one of the major departments, and of the student who desires general information concerning all or some of the major departments.

A number of the higher educational institutions maintain home management houses where from 6 to 10 upper class home-economics students live for one semester or a shorter period, and where, through



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of the place in which the higher educational institution is located generally form the practice laboratories for prospective teachers.

Commercial Education

Commercial subjects with either general education or vocational objectives are offered in public and private schools on the secondary and higher education levels. The size of the school and the need in the community for commercial subjects govern the number and content of the courses offered.

Only one of the States has a State supervisor of commercial education. Nineteen cities have local supervisors but some of these devote a large part of their time to classroom teaching. Some State departments publish commercial courses of study varying from detailed syllabi specifying the years in which the subjects shall be taught to a mere listing of approved textbooks. Ordinarily the local school authorities are permitted to determine which and how many of the approved subjects shall be taught. Those States which do not publish courses or manuals encourage the local units to prepare courses suited to the needs of the community.

The system of private business and commercial schools has grown up without any more supervision and control than that which the States ordinarily have over other private business corporations. In 1925, 739 such schools enrolled 188,363 pupils. Some of them are attempting to comply with the regulations governing the stronger public schools. Four voluntary accrediting associations among them are now trying to raise private commercial school standards.

Commercial courses in secondary schools.—In the seventh, eighth, and ninth grades whether in the elementary school and four-year high school, or in the junior high school, the commercial courses are confined very largely to reviews of penmanship, arithmetic, and spelling and are offered primarily to emphasize and prepare more efficiently for fundamental operations in clerical positions and in later vocational courses.

A general preparatory and orientation commercial course, which usually follows a general study of vocations and gives a somewhat intensive view of business occupations, has been prepared for the junior high school and is becoming popular. It is commonly elective. The time devoted to it varies from two periods per week for a half-year to five periods per week for two and one-half years. Efforts have been made to increase the time to five periods per week for two years. In the large schools the course is often a combination to further training in the tool subjects—arithmetic, penmanship, etc.—and of information about business service and clerical practice.

The small communities are not able ordinarily to offer more than a few commercial subjects. In such instances the pupils take the academic course and elect a few commerial subjects. In schools of the next larger size, one general commercial curriculum is offered. That curriculum may be based upon stenography, or bookkeeping, or a combination of stenography and bookkeeping. The large city high schools usually offer curricula in stenography, bookkeeping, selling, and special commercial curricula, including commercial and academic subjects acceptable to particular universities. Close guidance in the selection of these subjects is necessary for those students contemplating entrance into the univerities. The secondary commercial curicula in the large cities require that the pupils spend about half of their time upon commercial subjects. In the large schools, three years of bookkeeping are offered. Many schools begin the major vocational stenographic course in the eleventh year and continue in the twelfth year. In some of the larger cities shorthand and typewriting are started in the tenth year, continued in the eleventh year, and secretarial practice and office equipment instruction are offered in the twelfth year. A few school systems begin the major vocational courses in stenography and bookkeeping as early as the seventh and eighth grades.

There is considerable demand for instruction on the secondary level for sales people and many schools are now offering salesmanship curricula. In 40 cities the classes of salesmanship, usually in the eleventh and twelfth grades, divide their time between the school and store.

Evening school commercial courses are conducted in practically all cities and in many of the small communities. Students may ordinarily study thus any subject offered in the day schools. Many cities enroll as many pupils in evening commercial classes as in the day classes. About half the States have commercial classes in part-time continuation schools of their large cities. Under certain conditions these classes may receive Federal aid.

Commercial training on the higher education levels.—Many junior colleges are offering commercial training for those who do not wish to take the full four-year collegiate course in business.

Some of the large universities offer a number of highly specialized, four-year curricula, including business organization and management, accountancy, transportation, banking and finance, insurance, real estate, personnel management, commerce and law, selling and store management, commercial and civic secretarial work, and commercial-teacher training. The sequences of courses are often worked out cooperatively by the universities and business men's organizations.

Some of the older and larger universities are maintaining five, six, and seven-year curricula in which the emphasis is placed on research work. Most of them have bureaus of research and many of the best researches in the basic and other industries of the different States have been conducted through these bureaus. Another very important recent step in university education for business has been the establishment of programs for closer guidance and placement of students. Extension courses, correspondence courses, and short intensive courses for employment in a particular field, such as real estate, have been developed in some instances. A few universities have part-time cooperative classes in commerce.

University degrees in commerce.—Many university faculties, because of the traditional concept of the significance of the Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees, refuse to grant these degrees to students majoring in business, although they do grant them to students majoring in economics. Consequently, new degrees have been created for students of business. Forty-four distinct degrees are now offered with designation indicating that the collegiate study was in the field of commerce.

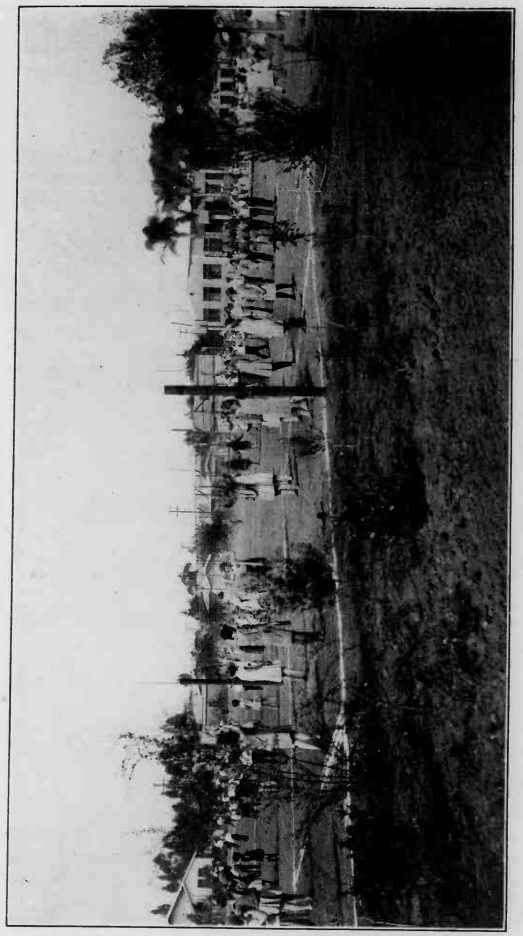
One hundred and fifty-eight colleges and universities have departments of commerce and business with four-year courses leading to the baccalaureate degrees. Some of these schools and a number of others offer undergraduate two-year curricula in business, the great majority of which lead to certificates or diplomas. Most universities offer the master's degree, usually with a designation that the major was in commerce, for one year of graduate work. Some of the universities require two years of graduate work for this degree.

Education for Health

Health is now, theoretically, placed first among our objectives in education. Such an attitude toward this subject has developed recently, and, though there is yet a great deal of inconsistency between theory and practice, the physical welfare of the child is taken with far more seriousness than formerly. Not only is the health of the child considered of the greatest importance for his own good, but it is also recognized that it is a waste of time and of public funds to attempt to train pupils who are not physically in condition to profit as they should by that training.

The school environment of the child is looked upon as of great importance, and school authorities are adopting the recommendations of sanitarians as to seating, lighting, heating, ventilation, water supply, sewerage, etc.

The importance of ample facilities for play is more and more appreciated and, although the size and condition of playgrounds is usually a matter of local decision, the department of education of one



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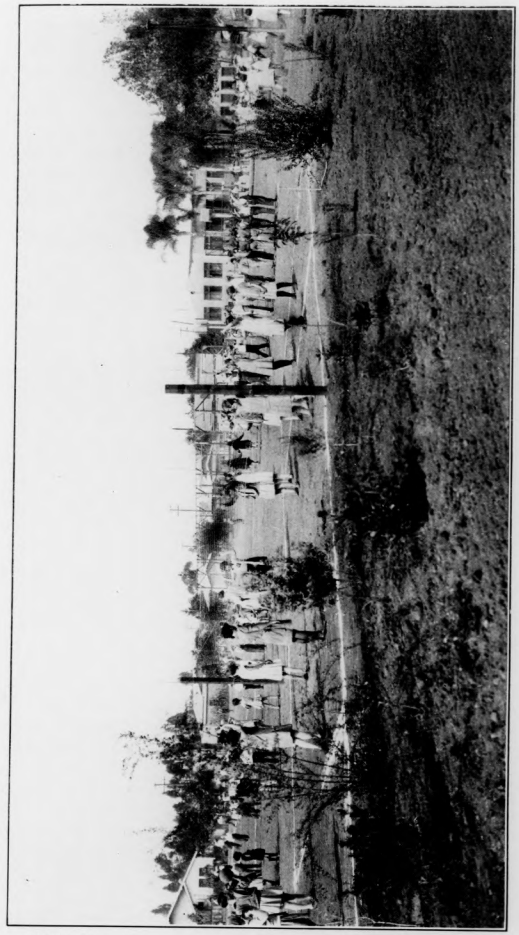

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State (Delaware) has made the following minimum requirements: For one-teacher schools, 2 acres; two-teacher schools, 3 acres; three-teacher schools, 4 acres; larger elementary schools, 5 acres; and for secondary schools (high schools), 10 acres. A well-appointed gymnasium is a feature of most of the new high schools and of some elementary schools, and many high schools are supplied with swimming pools.

Physical examinations.—The positive health work of the schools began more than a half century ago in the medical examination of students in some of the colleges. Slowly this work filtered down

A MORNING EXAMINATION FOR CLEANLINESS

into the elementary schools, and the past two or three years have seen its application even to the preschool child.

Forty-two States have laws either authorizing the medical examination of school children or making such an examination compulsory in more or less detail.

Though medical inspection in this country was begun by city departments of health, this function has been transferred in Boston, Providence, and other places to the department of education; in communities taking up this work in recent years, it has practically always been made from the beginning a part of the educational system.

It is the general policy to examine children every year, though in some cities a thorough examination is attempted only three times during the elementary course. Children who have reached the age

when they may follow an occupation, must in many States pass an examination for physical fitness before being granted a permit.

The routine examination of children is often left, in large part, to the school nurse or teacher, or both, the physician acting in the capacity of adviser and consultant as to whether the child needs treatment. More and more this, as well as other health work, is made to center in the regular teacher, for the teacher is most acquainted with the child and her appraisement of his physical habits and condition along with his mental activities, is invaluable. Moreover, it has been found that, in the physical examination of the child, the teacher with a little training along this line is fully as competent in observing defects as the average physician.

Only about 15 per cent of the rural population is provided with official local public health service approaching adequacy, and even where this service is enjoyed a trained official for school medical inspection is seldom afforded. In many of such sections of the country the physical examinations are made by a district school nurse or by the teacher alone.

Correction of defects.—Correction of defects is not made compulsory and is secured in a varying degree according to the interest and effectiveness of the school officers and the attitude of the home. The school nurse is a most important agent in securing the consent of unresponsive parents; but the recent policy of inviting the parents to be present at the examination of the child reduces the work of the school nurse to a minimum.

Health education.—The United States has made a valuable contribution to the school health program in its recently adopted method of teaching hygiene, or "health education" as it is specifically termed. This consists in placing this subject on the same basis as reading, writing, and arithmetic and securing the practice of what is preached.

The few practices essential for health are not only taught, but the child is stimulated by all pedagogic means to put his knowledge into daily practice. Great stress is laid on the subject of nutrition and periodic weighing and measuring of children is done by the teacher in a large proportion of the schools. School lunches are served in many city schools and in rural sections children are advised what food to bring, and this is supplemented by warm dishes prepared by the teacher.

The results of health teaching, especially among younger pupils, depends greatly upon the attitude of parents; and realizing this, efforts are put forth to inform the parents as to what the schools are trying to do for the children, and to secure their cooperation. The parent-teacher organization has proven a powerful agency in bringing about such understanding and assistance.

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The time devoted to physical education is coming to be looked upon as chiefly instructional and wholly inadequate for hygienic purposes, and many schools make arrangements for supervised play outside of school hours.

Fifteen States have general directors of physical education and in some of these States this official also stimulates and supervises the work of health education. Most of the States furnish the teacher with general outlines of material and methods for teaching these subjects.

Interschool competitive athletics is a feature of secondary schools, though these activities are looked upon as of general extracurricular interest for which the school authorities are only generally responsible, and as a source of social rather than physical benefit to those who take part in such games.

Schools or classes for mentally and physically defective children are developed, especially in large cities. Specially designed buildings, with appropriate instruction for the seriously crippled child, are in New York, Cleveland, Rochester, Chicago, Minneapolis, and other places. Children with very defective vision, the hard-of-hearing, and those with speech defects are taken care of in our larger centers of population by specially trained teachers. This is true, also, of children who, because of mental deficiencies, can not profit in present or after life by instruction in regular classes.

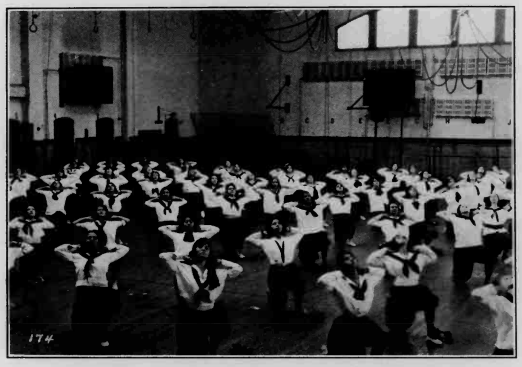
Tuberculous and badly nourished children of large cities are taught in open-air or open-window schools, though the tendency is to try to furnish more nearly ideal atmospheric and other health conditions for all pupils.

The summer camp is growing in importance. Not only are children of the well-to-do privileged to attend these out-of-door schools, but thousands of the poor and the sickly are sent to the country at private or public expense. Camps are now provided for the average child through the extension division of many agricultural colleges and it seems that this missing link for connecting the spring and fall terms of school may soon become a part of our educational system.

Health of the teacher.—Excellent preparation of special supervisors or teachers of physical education and school hygiene is offered in the three years' course of a dozen special schools and in the special courses offered in a hundred or more colleges and universities.

The health of the teacher, in training and after, is considered with care in many training schools. One State (Connecticut) has gone so far as to employ a physician to examine and pass upon the physical fitness of the applicant for training; and students with remediable defects of vision, hearing, etc., are placed on probation until these faults are corrected.

Physical welfare of college students.—In an increasing number of institutions for higher education the physical welfare of the student is looked after with thoroughness. A large percentage employ a resident physican who examines entrants for physical defects and serves as a consultant at all times. Some of the large universities and colleges maintain infirmaries and a nursing staff for their students.



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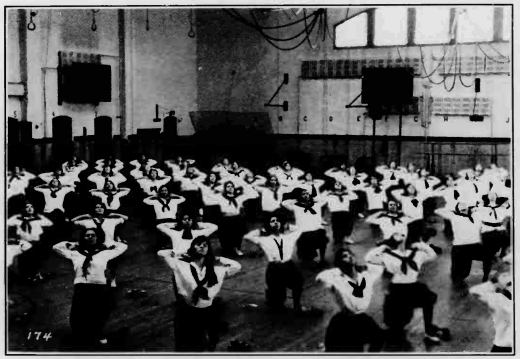

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Libraries and Museums

Libraries

The organized library is regarded in the United States as an essential part of the system of public education for those pursuing courses in educational institutions and for those undertaking to continue their education without formal schooling. The libraries of the country may be grouped under the designation of public, society, and school libraries. There is no universally accepted definition of the term "public library." In general, it may be said that a public library in the United States is either owned or controlled by the public, or is freely accessible to the public; or it has two of these features or all three of them. A society library is owned or controlled by an association, society, or corporation, and may be open more or less freely to use by the public. The term "school libraries" comprises those which are maintained by schools of any grade, by colleges, or by universities. Every recognized college or university necessarily has its library as a central feature. Practically all accredited secondary schools, and many elementary schools, also have their own libraries. The college and university libraries are primarily for the use of the faculty and students of these institutions, but are also usually open to the public for reference.

The organization and administration of public libraries is promoted and regulated similarly to State control of public schools by State legislation and not by the Federal Government. Municipalities are authorized by the State to use funds raised by public taxation for library support. Most States of the Union have special library laws, which, besides specifying the conditions of local appropriations for libraries, provide also for a measure of State aid, authorize State inspection and control, and arrange for carrying on certain forms of state-wide library activity, usually under the general supervision of a library commission, or its equivalent, with headquarters at the State capital. Financial aid from the State is usually conditioned on the appropriation by the local library of an equal sum, and is often not limited to municipally owned or supported institutions. Systematic library work fostered by State aid and control is constantly extended, and is welcomed by librarians, who are active through their associations in promoting the establishment of library commissions in new territory.

The number and efficiency of public libraries vary greatly in different sections of the United States, some States, especially in the North

and East, being well provided with libraries and others having more or less inadequate book facilities. About 57 per cent of the people of the United States live in areas having access to public-library service. As might be expected, the urban districts are much better provided in this respect than are the rural regions. Library service to rural communities is being improved by the growing adoption of the county as a unit, which has been found best for this purpose in most parts of the United States. Laws permitting counties to provide county library service have been enacted in 31 States and the Territory of Hawaii, and in several other States county library service is provided under general powers.

CHILDREN'S ROOM IN A PUBLIC LIBRARY, WASHINGTON, D. C.

The modern American public library is an active educational agency, reaching out to draw people to use its stores of printed material and the other facilities offered by it, such as lectures and exhibits and the use of its rooms for debating and study clubs. Its ideal is to find a reader for every book on its shelves and provide a book for every reader in its community and in all cases to bring book and reader together. It is one of the important agencies in adult education. The best libraries have highly trained staffs with members capable of rendering expert service in their special subjects. The facilities for the professional training of librarians have been greatly expanded in recent years, and graduation from a library school is now required for the responsible positions. Some States have established a certification system for librarians similar to that for teachers.

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Libraries

The organized library is regarded in the United States as an essential part of the system of public education for those pursuing courses in educational institutions and for those undertaking to continue their education without formal schooling. The libraries of the country may be grouped under the designation of public, society, and school libraries. There is no universally accepted definition of the term "public library." In general, it may be said that a public library in the United States is either owned or controlled by the public, or is freely accessible to the public; or it has two of these features or all three of them. A society library is owned or controlled by an association, society, or corporation, and may be open more or less freely to use by the public. The term "school libraries" comprises those which are maintained by schools of any grade, by colleges, or by universities. Every recognized college or university necessarily has its library as a central feature. Practically all accredited secondary schools, and many elementary schools, also have their own libraries. The college and university libraries are primarily for the use of the faculty and students of these institutions, but are also usually open to the public for reference.

The organization and administration of public libraries is promoted and regulated similarly to State control of public schools by State legislation and not by the Federal Government. Municipalities are authorized by the State to use funds raised by public taxation for library support. Most States of the Union have special library laws, which, besides specifying the conditions of local appropriations for libraries, provide also for a measure of State aid, authorize State inspection and control, and arrange for carrying on certain forms of state-wide library activity, usually under the general supervision of a library commission, or its equivalent, with headquarters at the State capital. Financial aid from the State is usually conditioned on the appropriation by the local library of an equal sum, and is often not limited to municipally owned or supported institutions. Systematic library work fostered by State aid and control is constantly extended, and is welcomed by librarians, who are active through their associations in promoting the establishment of library commissions in new territory.

The number and efficiency of public libraries vary greatly in different sections of the United States, some States, especially in the North

and East, being well provided with libraries and others having more or less inadequate book facilities. About 57 per cent of the people of the United States live in areas having access to public-library service. As might be expected, the urban districts are much better provided in this respect than are the rural regions. Library service to rural communities is being improved by the growing adoption of the county as a unit, which has been found best for this purpose in most parts of the United States. Laws permitting counties to provide county library service have been enacted in 31 States and the Territory of Hawaii, and in several other States county library service is provided under general powers.

CHILDREN'S ROOM IN A PUBLIC LIBRARY, WASHINGTON, D. C.

The modern American public library is an active educational agency, reaching out to draw people to use its stores of printed material and the other facilities offered by it, such as lectures and exhibits and the use of its rooms for debating and study clubs. Its ideal is to find a reader for every book on its shelves and provide a book for every reader in its community and in all cases to bring book and reader together. It is one of the important agencies in adult education. The best libraries have highly trained staffs with members capable of rendering expert service in their special subjects. The facilities for the professional training of librarians have been greatly expanded in recent years, and graduation from a library school is now required for the responsible positions. Some States have established a certification system for librarians similar to that for teachers.

Museums

At least 1,000 widely scattered museums are helping either actively or passively in the work of education. All the large cities of the eastern coast have big museums, and a chain of them extends along the Pacific coast. New England and Pennsylvania, especially, have many college museums and small museums of history.

The public museums are mostly owned and operated, not by municipal or other public authorities, but by boards, bodies corporate, legalized under the general incorporation laws of the State in which they carry on their activities. The larger ones occupy public buildings usually erected for the purpose by a bond issue of the municipality and located in public parks. In return for the use of the buildings, the board maintains the museum not for profit but for service to the public. It may receive an annual grant from public funds.

The general, undirected educational service rendered by the museums is in the aggregate wide and great, but it is no way measurable. Of the special, directed educational efforts for both adults and children, those for children are the better developed and the more important. In cooperation with the schools, the museums lend the teachers large quantities of material to be used in illustrating regular classroom instruction. The materials may be selected and organized to help explain processes of nature such as the formation of fossils, oil deposits, coal beds, etc.; methods of obtaining raw products and manufacturing them into finished articles, as the production and manufacture of silk and wool; or they may be simple collections not intended to demonstrate the different phases of any process. Many of the museums are now maintaining their own classrooms usually under the control of one of more teachers paid by the local school system and detailed to the museum as regular instructors for the classes that come at stated periods from the schools.

For children who make their own contacts with the museum independently of the school, the museum offers story hours, games, and organized class or club work given under the direction of its own employees and designed to attract and help children in an understanding of nature.

The trend of adult education in the United States is toward better organization and more continuity of purpose in instruction. The museums are following this trend and are organizing classes of adults with the express intention of giving them aid in particular fields.

Several city school systems have established their own school museums and these confine their activities for the most part to school service. College museums are primarily teaching collections, and

there are hundreds of them. A few have grown so large that they have become public museums and carry their work out into the surrounding urban and rural communities by the usual public museum methods. Other colleges make arrangements with near-by museums to give credit courses.

At present small museums in the United States are formed at the rate of several score a year and it now seems that the museum of the future will be small. The demand upon the National Museum at Washington for information about setting up museums has grown so great that that institution now accepts as a part of its regular duties the responsibility of giving advice on how to establish, organize, and conduct a museum.

Contribution of the National Government to Education

The Continental Congress in its "Land Ordinance" of May, 1785, dedicated from the public lands which lay west of the 13 Colonies, Lot. No. 16 of every township to "the maintenance of public schools within the said township." The Ordinance of 1787 declared, "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged."

The spirit of those pronouncements, practically national in their scope and significance, has been characteristic of the Federal Government ever since its inception. The policy of giving public lands for education has been continued, and lands and scrip have been granted to a total of 117,244,519 acres, an area nearly equivalent to that of the German Republic. The distribution is as follows:

	Acres
For the common schools	94, 164, 284
Universities	2, 166, 463
Agricultural colleges	11, 047, 600
Normal schools	1, 385, 000
Schools of mines	720, 000
Other educational purposes	7, 761, 172

Every department of the National Government aids either directly or indirectly in some way in education. Certain sums are appropriated directly for educational work; others are for agencies educational in their nature but less limited in field than the regular school systems. Some activities, directly educational, are not maintained by specific appropriations, and it is not possible to state their cost from records available. Salaries of officers of the Army and Navy and of the Public Health Service who are engaged in educational work are not included in the costs reported. It is impossible, therefore, to make a complete statement of the contribution in money of the United States Government to the cause of education. An examination of the detailed expenditures, however, shows that for the year ended June 30, 1926, the Federal Government expended approximately $62,000,000 for educational purposes.

Three Representative Federal Agencies for Education

Bureau of Education

The necessity of some central office for the collection and study of educational statistics and data was early seen and appreciated. Several attempts were made to interest Congress and the Federal Government in a national office of education, but the efforts proved futile until the National Association of School Superintendents, at their annual meeting in Washington, D. C., February 6–8, 1866, appointed a committee to memorialize Congress on the question. On February 14, 1866, Representative James A. Garfield, of Ohio, afterwards President of the United States, presented the memorial to the House of Representatives, together with a bill for the establishment of a Department of Education on practically the lines proposed by the school superintendents. The bill was passed by the Congress and was approved by the President March 3, 1867.

The Department of Education was continued as an "independent establishment" until July 1, 1869, when, according to a provision in an act approved July 20, 1868, it was constituted an office or bureau in the Department of the Interior.

The purposes of the bureau, as set forth in the law establishing it, are—

> to collect statistics and facts showing the condition and progress of education in the several States and Territories, and to diffuse such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems and otherwise promote the cause of education throughout the country.

The bureau is, therefore, primarily an institution for educational research and promotion. The act creating it gave it no administrative duties, and the administrative duties that it possesses were subsequently assigned to it.

The functions of the bureau have been divided into four parts: Field service, research and investigation of special educational problems, educational surveys, and the dissemination of information.

Service in the field by representatives of the bureau includes lectures and addresses upon educational topics before teachers, students, women's clubs, business men's clubs, and other organizations interested in education, conducting and assisting in special conferences for the consideration of educational questions, visiting and conferring with school officers and teachers for the purpose of procuring and imparting information, and participation in educational surveys at the request of the proper local authorities.

Surveys of educational conditions in particular institutions, localities, counties, and States constitute an important function of the

Bureau of Education. Such surveys have become, in recent years, a most valuable method of seeking out weaknesses in school systems and of recommending programs of improvement.

To fulfill its function as a clearing house of information, the bureau is engaged upon the systematic study of a variety of current problems. The results of the research and survey work are usually published by the bureau as part of its work in the dissemination of information.

The plan of publication of the Bureau of Education includes (1) a biennial survey of education, comprising a complete statistical and textual résumé of educational conditions in the United States, with brief statements of the conditions in the principal foreign countries; (2) an annual report of the operations of the Bureau of Education; (3) bulletins or monographs usually containing comprehensive reports of educational research; (4) leaflets, comprising less extensive reports or discussions of educational movements or occurrences; (5) the periodical SCHOOL LIFE, which contains information of current educational events. A limited edition of each document is distributed gratuitously, and later editions are sold at the actual cost of printing.

The first national program of home education to be adopted by the Government of the United States, or in fact, by any national government, was inaugurated by the Bureau of Education in 1913, and to-day the National Reading Circle includes readers in every State of the Union, in the insular possessions of the United States, and in many other countries where Americans are temporarily residing.

Direction of the education and welfare of the natives of Alaska was assigned to the Bureau of Education when civil government was established in that Territory in 1885. That work involves far more than academic instruction in the schoolroom. Like primitive people generally, the Alaskan natives, especially the Eskimos, lived largely by hunting and fishing, and were accustomed to move from place to place when it became necessary to find a better food supply. At best they led an uncertain and precarious existence, and because of their migratory habits it was exceedingly difficult to carry the means of civilization to them. It was proposed, therefore, in 1890, to import domestic reindeer from Siberia and by establishing reindeer raising as an industry to give the Alaskan Eskimos an assured means of support and in the course of time to advance them from a nomadic to a pastoral people.

A beginning was made in 1891. Importations were continued until 1902, and in that time 1,280 Siberian deer were landed in Alaska. Congress has continued to appropriate money for the work and it has been remarkably successful. Reindeer "stations" have been established at convenient places, and in them young Eskimos are taught

to care for the deer. After sufficient training each apprentice receives a small number of animals and he is allowed to establish a herd of his own under the supervision of officers of the Bureau of Education. There are now approximately 500,000 reindeer in Alaska and two-thirds of them are owned by natives.

In the meantime, the other educational and philanthropic work of the bureau in Alaska has also progressed. School work, largely industrial in its character, has been carried on, medical relief has been extended, sanitary methods of living have been maintained, commercial enterprises of the natives have been fostered, and destitution has been relieved as far as possible with the resources at the command of the bureau. Teachers in settlements where the services of a physician or nurse are not available are supplied with medicines for use in relieving minor ailments.

Other than the work in Alaska the only administrative function performed by the Bureau of Education is in connection with colleges of agriculture and the mechanic arts endowed by the Morrill Act of July 2, 1862. By that act 11,050,000 acres of public land were distributed to the States in proportion to the respective numbers of Senators and Members of Congress; and though more than a half million acres remain unsold, the receipts from sales have reached about $20,000,000, and the income amounted in 1923–24 to $1,060,875. Under later acts, $2,550,000 is disbursed annually to the several States, Alaska, Hawaii, and Porto Rico, each receiving $50,000. These funds are expended for the agricultural and mechanical colleges under the supervision of the United States Commissioner of Education, who must certify that moneys previously disbursed have been expended in accordance with law before a new allotment can be made to any State.

Bureau of Indian Affairs

The Bureau of Indian Affairs conducts an efficient school system for the children among the 349,876 Indians in the continental United States.

The first strictly Government Indian boarding school was established at Carlisle, Pa., in 1879. Since that time reservation and nonreservation boarding schools have been established, as well as day schools. Reports for 1926 indicate 84,553 Indian children of school age in the United States, of whom 14,661 are not in school. In nonreservation boarding schools there were 8,809 pupils; reservation boarding schools, 11,283; day schools, 4,499; mission boarding and day schools, 7,331; private or State contract boarding and day schools, 7,331; private or State contract boarding schools, 240; and in the public schools of the several States, 37,730, making a total of 69,892 Indian children in all schools. About 7,674 children of

school age are ineligible for attendance on account of physical disability or premature marriage.

The bureau has 18 nonreservation boarding schools, 59 reservation boarding schools, and 131 day schools. In addition, it contracts for the education of pupils in 18 mission boarding schools. Children are taught also in 34 noncontract mission boarding schools and 34 day schools. Approximately $5,500,000 of the bureau's annual appropriations are expended for the education of Indian children. In public and Indian day schools the annual cost per pupil ranges from $60 to $125; in reservation and nonreservation boarding schools it approximates $225.

The schools maintained by the bureau and those with which it makes contracts for the education of Indian children compare very favorably with the best public schools in the United States. The boarding schools furnish food, clothing, transportation, medical attendance, and dental service. The day schools furnish a midday meal without cost to the children.

The general organization of the instruction is the 6–3–3 plan, and in several schools the courses include the three senior high-school grades. An enrollment of 910 senior high pupils in 1926 shows a considerable demand by Indian youth for high-school training. The boarding-school program allots one-half the time to classroom instruction, one-fourth to vocational training, and one-fourth to work in conducting and keeping up the institution. This noneducational labor is reduced as much as possible.

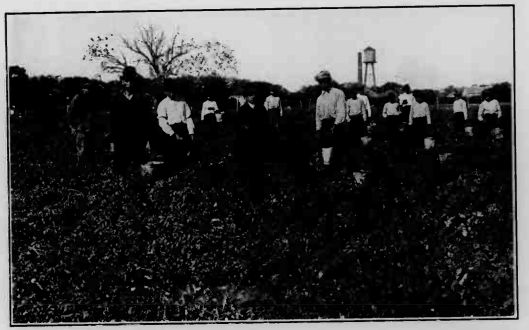
Vocational and practical training are strongly emphasized; and since most of the Indians will be farmers, the boys are taught farming, gardening, and stock raising. To a limited extent they may learn blacksmithing, carpentry, painting, plumbing, engineering, including auto mechanics, and masonry. Business training was introduced in 1897, and hundreds of graduates of the courses now hold positions of responsibility either with the Government or in the commercial world.

The teaching of home economics has consistently been a part of the education of the girls. Some 60 trained home-economics teachers are employed in 35 of the large schools; in the small reservation schools the housekeeping departments carry the class work. Eighteen schools have practice cottages and others have varying types of equipment. Cottages accessible to Indian communities are planned as model homes suitable for the particular locality, so that the older people may benefit.

Care of the home, home sanitation, care of children, clothing for the family, preparation of the day's meals, care of chickens, and a garden are all projects of this department. The family group organization has been used so that the girls may learn something of family relationships and adjustments.

The adaptation of Indian design to handwork has been encouraged and some very creditable results are shown. The use of native pottery, baskets, and blankets is also encouraged.

Specialization is permitted in the last two years of high school. The definite objective in the courses planned for these two years is to train the girl for a vocation whereby she may make her own way when she leaves the school. She may have one year of nurse-training in the school hospitals and then complete her training in two years in an outside hospital. The home economics courses are so planned that a girl may elect a matron's course, a seamstress's course, or a cook's course. The positions of cook, laundress, seamstress, matron, and nurse in the schools are open to these girls.



GARDENING BY PUPILS OF THE UNITED STATES INDIAN SCHOOL AT WINNEBAGO, NEBR.

Health is prominently featured in all the school work. The rules of health are taught and lived at school in such a way that life habits are formed and the influence of this teaching is reaching out to the adult Indians who are more and more realizing the necessity of establishing habits of right living.

In the large Indian schools regular classes in physical culture are held in well-equipped gymnasiums, and in addition, intramural games are held between class, departmental, or industrial teams.

About half the Indian children enrolled in school are attending the public schools in the States where they reside. Authorizations were issued in 1926 for the payment, from Federal funds, of tuition to State public schools in 737 school districts for 10,340 pupils. The total payments approximated $311,000. These did not include children for whom tuition was paid from the tribal funds of the Chippewa Indians in Minnesota, nor those of the Five Civilized

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Tribes in Oklahoma. Payment of tuition was made for 933 Chippewa children in 38 districts in Minnesota. In the territory of the Five Civilized Tribes financial assistance was rendered to 149 districts in which the total enrollment exceeded 15,000. The bureau actively fosters this form of cooperation as part of a general policy looking toward the final release of the Indians from the status of wards of the National Government.

Federal Board for Vocational Education

The national vocational act of 1917 (Smith-Hughes law) provides for the payment by the Federal Government of certain sums of money—

> to the respective States for the purpose of cooperating with the States in paying the salaries of teachers, supervisors, and directors of agricultural subjects, and the teachers of trade, home-economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial, and home-economics subjects.

In addition to the money appropriated for these purposes, $200,000 is provided—

> for the purpose of making or cooperating in making * * * studies, investigations, and reports, with particular reference to their use in aiding States in the establishment of vocational schools * * * and for the purpose of paying the salaries of the officers, the assistants, and such office and other expenses as the board may deem necessary to the execution and administration of this act.

By the provisions of the law there were annual increases in the sums appropriated for subventions from the time the law went into effect up to and including the year 1926, when the maximum appropriation of $7,184,901.51 was reached. This sum is to constitute the permanent annual appropriation. Of this sum, $7,000,000 is allotted to the States on the basis of population, apportioned as follows: For salaries of teachers, supervisors, and directors of agricultural education, $3,000,000; for salaries of teachers of trade, industrial, and home-economics education, $3,000,000—not more than 20 per cent being expended for the salaries of teachers of home-economics subjects; for salaries of teacher trainers and for maintenance of teacher training, $1,000,000. Of the total sum, $184,901.51 is appropriated on the basis of special allotment to guarantee to each State a minimum sum regardless of its population, and is distributed as to purpose as follows: To agricultural education, $31,987.39; to trade, industrial, and home-economics education, $56,148.19; to teacher training, $96,765.93.

The law provides for the administration of this fund by the Federal Board for Vocational Education, consisting of the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the United States Commissioner of Education, and three citizens of the United States to be appointed by the President. It is provided that one of the three citizen members be "a representative of the manufacturing and commercial interests, one a representative of the agricultural interests, and one a representative of labor." The board appoints a director who is the chief executive officer charged with the administration of the law. He is assisted by regional agents, appointed for different districts, who are headed by a chief for each of the several types of vocational education for which the law grants subventions, namely, agricultural education, trade and industrial education, and home-economics education.

Before a State could receive any Federal money, it was necessary for its legislature to enact a law accepting the provisions of the national vocational act, and to designate a State board for vocational education to act in cooperation with the Federal Board for Vocational Education in carrying out the provisions of the act. One of the requirements with which the State must comply before it can receive any funds is the preparation of a State plan for vocational education, setting forth the types of schools it proposes to establish, the kinds of courses it will offer, equipment for instruction, plans for supervision and teacher training, and qualifications for teachers and supervisory officials. A State plan is made for a definite term, usually five years, and must be approved by the Federal Board for Vocational Education. At the expiration of the term the plan, which constitutes a contract between the State board for vocational education and the Federal Board for Vocational Education, must be renewed.

The State board is required to make an annual report to the Federal Board for Vocational Education on the work that has been accomplished and to set forth the receipts and the expenditures of money under the provisions of the law. The amount of Federal money used must in every instance be matched by at least an equal sum raised by the State or local school community. For the fiscal year ending June 30, 1926, $2.54 was thus provided for every Federal dollar expended.

Federal money can be used to subsidize only schools and classes under public control, and supervision and the instruction must be of less than college grade. Vocational education, as the term is used in the national vocational act, is for the purpose of giving instruction to individuals to the end that they may be prepared for profitable and efficient employment. The Federal Board for Vocational Education "may withhold the allotment of moneys to any State whenever it shall be determined that such moneys are not being expended for the purpose and under the conditions" of the vocational law.

In addition to the 48 States which receive Federal funds, the Territory of Hawaii participates in the distribution of Federal money as a result of a recent act of Congress.

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Federal money may be used in aiding all-day, evening, and part-time types of schools and classes. The vocational work in the all-day school is planned to meet the needs of persons over 14 years of age who have made a vocational choice and can be in full-time attendance at school. The work is preparatory for wage-earning employment in the vocational line chosen, and must be of a practical nature and upon a useful or productive basis. In agriculture provision is made for "directed or supervised practice * * * for at least six months per year." It is provided that for industrial and home economics, instruction shall "extend over not less than nine months per year and not less than 30 hours per week." One modification of these conditions is permitted, in that the law provides that in cities of less than 25,000 population a general industrial school may be organized for day-school students. This type of school provides for limited trade-preparatory training in more than one trade.

The work in evening schools and classes is for the purpose of providing vocational training for those individuals who are already employed in an occupational pursuit but desire additional training for advancement. One must be at least 16 years of age to enroll in an evening course, and the instruction received is to be supplemental to the work in which the individual is employed, that is, for the purpose of increasing "skill or knowledge in the occupation in which the worker is engaged as his daily employment."

For the fiscal year ended June 30, 1926, there were enrolled in federally aided vocational classes 752,150, of whom 405,474 were males and 346,676 were females. These were enrolled in specified types of vocational schools, according to sex, as follows:

	Males	Females
In agricultural schools:		
Evening classes	16,386	2,614
Part-time classes	2,583	133
All-day classes	78,539	3,266
Short unit classes	4,721	610
In trade and industrial schools:		
Evening	82,863	6,831
Part-time classes—		
Trade extension	30,490	11,194
General continuation	150,906	139,452
All-day classes	38,986	5,430
In home economics schools:		
Evening classes		101,305
Part-time classes		34,278
All-day classes		41,563

The vocational act provides for Federal aid to various types of part-time schools and classes. At least one-third of the money appropriated to any State for instruction in industrial and home economics subjects—

shall, if expended, be applied to part-time schools or classes for workers over 14 years of age who have entered upon employment, and such subjects in part-time schools or classes may mean any subject given to enlarge the civic or vocations intelligence of such workers over 14 and less than 18 years of age.

Not less than 144 hours of classroom instruction per year must be provided.

Three types of part-time classes are included:

(1) Trade extension part-time classes for persons who have entered upon employment. Training for this group is preparatory for promotion and advancement in the occupation in which the individuals are employed.

(2) Trade preparatory part-time classes for persons who are employed, but who desire to prepare themselves to enter upon employment in some occupation other than the one in which they are now employed.

(3) General continuation part-time classes for working youth between the ages of 14 and 18. The instruction may include any subject given "to enlarge the civic or vocational intelligence."

In addition to the grants for various types of vocational classes mentioned above, money is appropriated, under certain conditions, for the training of vocational teachers. According to the terms of the vocational act no State may receive any Federal money for vocational classes unless it also takes advantage of the use of Federal funds for teacher training. Federally subsidized teacher-training work must be under the supervision of the State board for vocational education and must be given in schools under public supervision and control.

For the fiscal year ended June 30, 1926, 853 teachers were employed in federally aided teacher-training courses. Of these, 528 were men and 325 were women. These were employed in specified types of courses, according to sex, as follows:

	Males	Females
Teacher-training courses for agriculture	199	2
Teacher-training courses for trades and industries	293	23
Teacher-training courses for home economics	38	301

For the same period 19,773 pupils were enrolled in Federal-aided vocational teacher-training courses. Of these, 11,598 were men and 8,175 were women. They were enrolled in specified types of courses as follows:

	Males	Females
Agriculture	3,767	162
Trades and industries	7,829	1,822
Home economics	2	6,191

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